DOCUMENT RESUME

ED 379 558	CG 025 996

AUTHOR	Ringwalt, Christopher L.; And Others
TITLE	Past and Future Directions of the D.A.R.E. Program: An Evaluation Review. Draft Final Report.
INSTITUTION	Research Triangle Inst., Durham, N.C.
SPONS AGENCY	Department of Justice, Washington, D.C. National Inst. of Justice.
PUB DATE	Sep 94
CONTRACT	91-DD-CX-K053
NOTE	216p.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC09 Plus Postage.
DESCRIPTORS	Adolescents; Children; *Drug Education; Drug Use; Early Intervention; Elementary Education; Health Education; Intervention; Outreach Programs; Police; *Police School Relationship; *Prevention; Program Effectiveness; Program Evaluation; Substance Abuse
IDENTIFIERS	*Drug Abuse Resistance Education Program

ABSTRACT

Drug Abuse Resistance Education (DARE) was designed to prevent students' use of tobacco, alcohol, and other drugs by using trained, uniformed police officers in the classroom. This report examines the effectiveness of DARE in drug use prevention and how this program compares to other prevention programs. The report is organized into four sections and four appendices. Section 1 provides an overview of school-based drug prevention programs. Section 2 presents the methodologies used and results of each of the four components of the implementation assessment. It includes information on the national/regional-level operations of DARE, the State-level operations, and the implementation of DARE and other drug prevention programs at the local level. The report's methodology appears in Section 3, along with the results of the outcome assessment, while in Section 4, findings are discussed from both the implementation and outcome assessments. The findings show that the program has been extremely successful at placing drug education in the Nation's schools. Appendices contain sampling information for the school district drug prevention coordinators' survey, descriptions of each study utilized in the meta-analysis conducted for the outcome assessment, a bibliography of comparison program evaluations, and data collection materials for the implementation assessment. (RJM)

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September 1994

Past and Future Directions of the D.A.R.E.® Program: An Evaluation Review

Draft Final Report

by

Research Triangle Institute
Christopher L. Ringwalt
Jody M. Greene
Susan T. Ennett
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University of Kentucky
Richard R. Clayton
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Acknowledgments

Any study of this complexity could not have proceeded without substantial advice, support, and assistance from many quarters. We begin by acknowledging with great appreciation our project officer at the National Institute of Justice, Winifred Reed, for her patience, support, and general clear thinking.

We gratefully acknowledge many in the D.A.R.E.® community, without whom this study could not have come to fruition. First, we would like to thank members of D.A.R.E.® America and the D.A.R.E.® America Policy Advisory Board for helping ensure the accuracy of the information presented, and their willingness to do so under the conditions we specified: that final responsibility for the report's content would be ours. In addition, we appreciate the many individuals who responded to our surveys, including the State D.A.R.E.® Coordinators and local school district drug prevention coordinators.

We should mention with thanks a number of our colleagues at the Research Triangle Institute who assisted us with the design and implementation of this study, including Drs. T.R. Curtin and Robert L. Flewelling, Renae Knight, Melodie Rush, and Eva Silber.

A key component of our study is the meta-analysis of prior evaluations of D.A.R.E.®, including our comparison of D.A.R.E.®'s effects to those of other school-based drug prevention programs targeting youth of the same age. To this end, the assistance provided us by Dr. Nancy S. Tobler was invaluable. We would also like to acknowledge the critical reviews of Drs. Susan L. Bailey, Karl E. Bauman, George H. Dunteman, Robert L. Flewelling, Ronald W. Johnson, and J. Valley Rachal.

We are grateful to Tom Colthurst at the University of San Diego for allowing us to present preliminary findings from this study at his biennial conference concerning the findings of recent school-based drug prevention research, which he hosted in March of 1993. This conference generated a positive discussion that assisted us in writing the final report.

Our thanks go also to all whom we have not mentioned here and who have shared their thoughts with us, or have otherwise assisted us, over the course of the past 3 years.

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September 1994

NIJ Publication No. ________

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SECTION I

INTRODUCTION AND OVERVIEW

CHAPTER 1
INTRODUCTION

Drug Abuse Resistance Education (D.A.R.E.®) is currently the Nation's predominant school-based drug prevention program, and both its prevalence and popularity continue to expand. The D.A.R.E.® program, designed to prevent students' use of tobacco, alcohol, and other drugs, uses trained, uniformed police officers in the classroom to teach a highly structured curriculum. Developed by the Los Angeles Police Department and the Los Angeles Unified School District (LAUSD) as a collaborative venture, the primary or core D.A.R.E.® curriculum is directed toward pupils in the final grade of elementary school (usually grade 5 or 6). Additional curricula for students in kindergarten through fourth grade, junior high school, senior high school, and for parents have been developed and implemented.

Purpose of the Study

D.A.R.E.®'s popularity, as demonstrated by the extraordinary growth in its rate of dissemination and by abundant anecdotal reports of its success, is self-evident. In part because of its preeminent position, policymakers, researchers, educators, and parents are asking a number of fundamental questions about the program:

- How effective is D.A.R.E.® in preventing drug use?
- What are D.A.R.E.®'s effects compared with those of other school-based drug prevention programs?
- What are some of the basic features common to most D.A.R.E.® programs?
- Who usually manages the D.A.R.E.® program?
- How extensively is D.A.R.E.® implemented nationwide?
- How do other alcohol and drug prevention programs compare with D.A.R.E.® and D.A.R.E.® with them?

To address these and other questions, the National Institute of Justice (NIJ) awarded the research team of the Research Triangle Institute (RTI) and the University of Kentucky's Center for Prevention Research (CPR) a grant to conduct an extensive review of the D.A.R.E.® program and to assess its place within the context of the broad spectrum of school-based drug prevention efforts.

Study Objectives

The research team proposed and carried out two distinct types of assessments, the first pertaining to implementation and the second to outcomes or effectiveness. The primary objectives of the implementation assessment were to

- assess the organizational structure and operation of representative D.A.R.E.® programs nationwide;
- review and assess factors that contribute to the effective implementation of D.A.R.E.® programs nationwide; and
- assess how D.A.R.E.® and other school-based drug prevention programs are tailored to meet the needs of specific populations.

The first two objectives for the implementation assessment relate exclusively to D.A.R.E.® The third targets D.A.R.E.® but also includes other drug use prevention programs.

The primary objectives of the outcome assessment were to

- identify all outcome evaluations of D.A.R.E.®'s core curriculum conducted to date in the United States and Canada;
- assess the methodological rigor of those evaluations;
- examine the nature and extent of the effects of D.A.R.E.®'s core curriculum; and
- compare the effectiveness of D.A.R.E.®'s core curriculum with that of other school-based drug use prevention programs targeting 5th- and 6th-grade pupils.

Although the first three objectives of the outcome assessment focus exclusively on D.A.R.E.®, the fourth places D.A.R.E.® in a larger context by comparing it with other drug prevention programs.

In this report, we synthesize the most important findings from both of the assessments and present overall conclusions, and some recommendations.

Description of the Study

To achieve the study's goals and objectives, the research team designed a set of research strategies that would yield data pertinent not only to a review and critique of D.A.R.E.®, but also to an assessment of how D.A.R.E.® compares with other school-based drug prevention programs, and of future directions for these programs. For the implementation assessment, we collected original data by conducting

- informal interviews and discussions with the coordinators and/or educational advisors of D.A.R.E.®'s Regional Training Centers (RTCs);
- a survey of State D.A.R.E.® coordinators; and
- a survey of drug prevention coordinators in a representative, stratified sample of school districts that included districts with and without D.A.R.E.®

We also conducted site visits to two pairs of schools (one school in each pair had D.A.R.E.® and the other did not). We discuss the methodologies used for each component of the implementation assessment in Section II of this report.

For the outcome assessment, the research team conducted a review and assessment of the published and unpublished evaluations of D.A.R.E.®'s core curriculum conducted to date. We collected no primary data, but instead studied prior D.A.R.E.® evaluations using meta-analytic techniques. The methodologies we used for the outcome assessment are presented in Section III of this report.

At the conclusion of our data collection and analysis efforts, the research team joined Tom Colthurst of the University of California at San Diego Extension Program in March 1993 to host a conference in San Diego, California, titled "Evaluating School-Linked Prevention Strategies–Alcohol, Tobacco, and Other Drugs." Almost an entire day of this 3-day conference for policymakers, researchers, and practitioners centered on the preliminary results from this study. This conference provided an opportunity to disseminate early study findings from both the implementation and outcome assessments, and to incorporate participants' responses (including responses from D.A.R.E.® America as well as D.A.R.E.® and other drug prevention researchers) to the findings in this final report.

Strengths and Limitations of the Study

We believe our approach to this study was fully responsive to NIJ's solicitation. Among the many strengths of this approach are the following:

- a multifaceted study methodology that collected information from the national, regional, State, and school district levels of D.A.R.E.® and reviewed all short-term evaluations of the D.A.R.E.® core curricula conducted to date;
- a rigorous examination and synthesis of the results of previous evaluations of D.A.R.E.®; and
- incorporation into this final report of both formal and informal feedback from researchers and practitioners attending the dissemination conference.

However, we recognize that there are limitations to our study, due primarily to limitations in the resources available to us. For example, our study budget would not allow us to survey local D.A.R.E.® officers and classroom teachers, or monitor the delivery of D.A.R.E.® in the classroom. Additionally, some questions raised in NIJ's solicitation, such as issues relating to the effectiveness of the regional and State D.A.R.E.® training centers, could be answered only in part. A complete answer would have required a many-layered study that examined training centers' objectives, how these objectives are put into effect through training received both by trainers and by D.A.R.E.® officers, and ultimately how the officers perform in the classroom. This was clearly outside the scope of this study. We also were limited in assessing certain questions, such as variability in effectiveness of the D.A.R.E.® curriculum by the sociodemographic characteristics of the respondents because of the lack of research in this area (see Chapter 8 for further details).

Given the level of resources available for this study, the research design required some compromises among the multiple objectives invoked in NIJ's stated purposes, goals, objectives, and program strategies. However, the research team believes that the study represents an optimal mix of data collection methods and sources. Discussions with members of the D.A.R.E.® America RTC Advisory Board and other officials associated with the D.A.R.E.® training centers, when combined with information gathered from the survey of State D.A.R.E.® coordinators, provided answers to the questions relating specifically to the structure and operations of the D.A.R.E.® program. The survey of school district drug prevention coordinators yielded information about D.A.R.E.® and its relationship to other school-based drug prevention programs. The site visits provided an illustrative, if unrepresentative, snapshot of D.A.R.E.®'s implementation in two schools. A rigorous examination of past D.A.R.E.® evaluations provided information on the effects of the program on students.

Overview of the Report

This report is organized into four sections and four appendices. Section I contains the first two chapters, which provide an overview and history of school-based drug prevention programs, with detailed information about the curricula and teachers of D.A.R.E.® Section II has four chapters that present the methodologies and results of each of the four components of the implementation assessment. In these four chapters, we present information about the national/regional-level operations of D.A.R.E.® (Chapter 3), State-level operations of D.A.R.E.® (Chapter 4), and the implementation of D.A.R.E.® and other drug prevention programs at the local level (Chapters 5 and 6). Section III (Chapter 7) presents the methodology and results of the outcome assessment. In Section IV (Chapter 8), we synthesize and discuss findings from both the implementation and outcome assessments, and present recommendations.

Appendix A contains sampling information for the school district drug prevention coordinators survey. Appendix B contains descriptions of each study utilized in the meta-analysis conducted for the outcome assessment. Appendix C presents a bibliography of comparison program evaluations, and Appendix D contains data collection materials for the implementation assessment.

CHAPTER 2

OVERVIEW AND HISTORY OF SCHOOL-BASED DRUG PREVENTION PROGRAMS AND D.A.R.E.®

History of School-Based Drug Prevention Programs

School-based educational programs are the most common approach to drug prevention aimed at young people. Prevention efforts are located in educational settings both because drug use typically begins during adolescence and because classrooms provide the best opportunity for reaching a large number of youth simultaneously. Although rates of drug use among U.S. students generally have been declining over the past few years (University of Michigan, 1994), these rates are still higher than rates of all other Western industrialized nations.

The U.S. Congress reacted to concerns about youth drug use by enacting the Drug-Free Schools and Communities Act (DFSCA) of 1986. The DFSCA was designed to establish programs of drug abuse education and prevention throughout the Nation. A key part of the DFSCA is Subtitle B of Title IV, which provides Federal money to States, schools, and communities to initiate or expand drug prevention programs. Actions resulting from Subtitle B of Title IV quickly resulted in the single largest drug prevention activity offered by the Federal Government, reaching $498,565,000 in FY 1993.

Research conducted by RTI staff concerning the implementation of State and local programs of the DFSCA found that in the 1988-1989 school year all 50 States, the District of Columbia, and the Commonwealth of Puerto Rico have actively participated in programs funded by the DFSCA at the State and local levels. Of all the school districts in the Nation, 78% reported that they received DFSCA funding, either directly or through regional or county education organizations (Thorne, Holley, Wine, Hayward, & Ringwalt, 1991).

The DFSCA funds appear to have had a positive effect on the school-based prevention programs of school districts. To be eligible for DFSCA funding, schools must implement a comprehensive drug prevention program. More than half of the districts receiving DFSCA funding reported that since the advent of such support, they had been able to expand or increase numerous aspects of their programs, including

- number of grade levels with substance abuse curricula,
- school-wide emphasis on substance abuse prevention,
- number of teachers and staff involved, and

- number of students involved.

A total of 25% of these districts had increased their curriculum development activities, and 48% had increased their degree of involvement with other groups in the community. The availability of DFSCA funds may be more limited in the future.

Drug Use Prevention Strategies

A variety of school-based intervention programs have been developed over the past three decades for preventing drug use among youth (Botvin, 1990; Flay, 1985; Hansen, 1992; Moskowitz, Malvin, Schaeffer, & Schaps, 1983; Tobler, 1986). The types of programs differ both in terms of what they teach as well as in how they are taught (Tobler, in press, 1994). Program content generally reflects assumptions about why young people use drugs. For example, activities to boost self-esteem reflect the belief that low self-esteem is a risk factor for drug use; strategies that teach youth how to refuse offers of drugs from friends assume that peer pressure leads to drug use. Similarly, teaching methods implemented in various strategies reflect beliefs about the most effective means for teaching young people not to use drugs. Programs that use didactic methods reflect a traditional expert model for learning; programs that emphasize group activities reflect the belief that participatory activities enhance understanding and learning more effectively.

Although hundreds of individual school-based prevention programs have been developed, they generally fall into three broad categories: (a) knowledge/information programs, (b) affective programs, and (c) social influences programs. A fourth category of prevention programs, alternative programs, includes those usually offered outside the school setting. Knowledge/information and affective education programs have sometimes been grouped together as more traditional approaches, while social influences programs represent newer approaches (Bruvold, 1993; Tobler, in press, 1994). These three types of programs tend to differ in content, in methods, and in their effectiveness. Even so, there is overlap among them.

Knowledge/information programs were the earliest school-based prevention efforts to be developed. These strategies are based on the assumption that youth begin using drugs because they are not sufficiently knowledgeable about adverse consequences. Once youth have adequate and accurate knowledge about drugs, it is assumed that they will behave rationally and choose not to use drugs. It is also assumed that changes in knowledge about drugs will promote more negative attitudes toward drug use, which in turn will be a deterrent to using drugs. Knowledge programs typically present factual information about the legal, biological, and psychological effects of drug use. Some of these programs have adopted scare tactics to present the risks of drug use to youth in a dramatic fashion. The methods used by knowledge/information programs typically include didactic presentations, discussion, and audiovisual presentations.

Affective programs were developed in the late 1970s and early 1980s and are based on the assumption that young people use drugs because of personal and social deficits. These programs emphasize increasing self-esteem, enhancing self-awareness, clarifying values, making responsible decisions, and improving interpersonal skills. Affective programs often do not mention drug use at all. By enriching personal and social development, it is assumed that youth will make responsible decisions about drug use. These programs typically are taught by the same types of methods as for knowledge/ information programs, but they also may include group activities.

Social influences programs are the most recent approach to drug use among youth. These programs are based on the assumption that youth use drugs because they do not have the social competencies needed to resist social pressures to use drugs. Some programs focus specifically on teaching youth the skills needed for resisting drug use influences. Other programs emphasize developing more general social competencies, such as increasing decisionmaking, improving communication, and reducing anxiety, in addition to enhancing drug-specific social skills. They may also include activities to correct misperceptions about the prevalence and acceptability of drug use among peers, as well as activities that seek to establish conservative group norms about drug use. Social influences programs typically include active, participatory learning experiences, such as modeling, role-playing, and practicing behavioral skills. Social influence strategies also frequently and actively involve "peers leaders" as teachers, in role-playing, or to facilitate discussion.

Despite the differences across program categories, there is actually much overlap among school-based prevention programs in their components. Affective programs share similarities with some social influences programs in their emphasis, for example, on developing personal competencies. Social influences programs frequently include information about drugs and adverse consequences. Some programs include elements of all three categories of programs and have been labeled comprehensive programs. Indeed, many school-based curricula, including D.A.R.E.®, combine strategies that reflect knowledge/information, affective, and social influences programs.

Research on the effectiveness of school-based prevention programs suggests that all three program strategies are not equally successful in preventing adolescent drug use (Bangert-Drowns, 1988; Bruvold, 1993; Tobler, 1986, in press, 1994). Knowledge/information programs generally have not been effective in preventing drug use among youth. The evidence suggests that, although information-based programs may increase students' knowledge of drugs, they are unlikely to result in positive changes in either attitudes or behavior. In fact, some research indicates that these programs may lead to undesirable changes in attitudes (Bruvold & Rundall, 1988). Affective strategies also have not performed well in previous evaluations and meta-analyses (Botvin, 1990; Tobler, 1986). For example, Hansen, Johnson, Flay, Graham, and Sobel (1988) found that students who received an affective education program reported significantly more drug use than students in a comparison group and that these differences increased over time. In contrast, the results of evaluation of social influences programs have been generally more positive (Botvin, 1990; Bruvold, 1993, 1986; Bruvold & Rundall, 1988; Flay, 1985; Hansen, 1992; Moskowitz, 1989; Pentz et al., 1989; Tobler, 1986, in press, 1994). In comparison with knowledge/information and affective programs, social influences programs have been more effective at preventing adolescent drug use.

History of D.A.R.E.®

D.A.R.E.® is a school-based drug prevention program designed to prevent students' use of tobacco, alcohol, and other drugs. Most D.A.R.E.® activities are directed toward pupils in the last grade of elementary school (grade 5 or 6), which is thought to be the age at which youth are most receptive to an anti-drug message, and before they begin experimenting with drugs (Bureau of Justice Assistance [BJA], 1991b). The original D.A.R.E.® core curriculum, which was implemented in 1983, was developed by Dr. Ruth Rich, health education specialist from the LAUSD. Dr. Rich based the D.A.R.E.® core curriculum on a review of other prevalent drug prevention programs, particularly Project SMART (Self-Management and Resistance Training), a prevention program designed by the Health Behavior Research Institute of the University of Southern California.

From its inception, D.A.R.E.® was designed to be a continuing education program for kindergarten through high school. To that end, junior high and senior high curricula were developed in 1986 and 1988, respectively. Additionally, D.A.R.E.® designers created a parent curriculum to teach parents how to recognize and prevent drug use among youth and to provide them with information about the program.

D.A.R.E.® is distinctive among school-based drug prevention programs in that it uses trained, uniformed police officers in the classroom to teach a highly structured curriculum. D.A.R.E.® officers enter the classroom not only because of a cooperative agreement between the local school district and law enforcement agency, but also because the community is willing to forgo or replace the time that D.A.R.E.® officers lose to other police duties. During D.A.R.E.®'s first year, 1983-1984, 10 officers taught the curriculum to around 8,000 students in 50 Los Angeles elementary schools (BJA, 1991a). D.A.R.E.® is now widely implemented throughout the Nation and parts of Europe and Asia. According to the BJA (1991b), some 6 million students in the United States received D.A.R.E.® in the 1991-1992 school year, and D.A.R.E.® is currently implemented in 8,000 cities across the Nation (Glenn Levant, personal communication). Indeed, the D.A.R.E.® workbooks are currently available in Japanese, Vietnamese, Spanish, and Braille. In addition, D.A.R.E.® has been adopted by several governmental agencies that sponsor schools, including the Department of the Interior, the Bureau of Indian Affairs, the

Capitol police, the National Park Service, and all overseas branches of the Department of Defense.

D.A.R.E.® combines an essentially local, grass-roots effort with a high degree of centralized program control asserted by coordinating mechanisms at the national, regional, and State levels. At the national level, D.A.R.E.® America assumes the primary responsibility for implementing and managing D.A.R.E.®, assisted by five RTCs that constitute the D.A.R.E.® America RTC Advisory Board. A detailed examination of the roles of national, regional, and State D.A.R.E.® organizations is presented in Section II, Chapter 3.

D.A.R.E.® Curricula

The primary purposes of all the D.A.R.E.® curricula for students are to

- teach students to recognize pressures to use drugs from peers and from the media,
- teach students the skills to resist peer inducements to use drugs,
- enhance students' self-esteem,
- teach positive alternatives to substance use, and
- increase students' interpersonal, communication, and decision-making skills (BJA, 1991a).

Each of the curricula is periodically updated; an updated version of the core curriculum is currently being pilot tested and will be implemented in September 1994. A brief summary of each of the five D.A.R.E.® curricula follows.

The D.A.R.E.® core curriculum, which is taught in the 5th or 6th grade, comprises 17 hour-long weekly lessons. The D.A.R.E.® officers have sole responsibility for teaching all of the lessons, although classroom teachers are encouraged to participate. Officers use a variety of teaching approaches, including the presentation of facts, group discussions, role-playing, and workbook exercises.

The core curriculum was updated in 1993 and will be fully implemented in 1994. The updated curriculum differs from the previous version in a variety of ways. The new curriculum, which has been renamed "D.A.R.E.® to Resist Drugs and Violence,"

- includes specific lessons concerning tobacco and inhalants,
- emphasizes normative beliefs and protective factors,
- adds violence prevention/conflict resolution strategies,
- uses more participatory learning activities, and

- employs a more collaborative partnership between the D.A.R.E.® officer and the teacher in the classroom (Charles Dunn, personal communication, June 22, 1993).

In both the old and new versions of the core curriculum, the lessons are cumulative, building upon concepts introduced in previous lessons. With the exception of lesson 14 in both versions, the lessons are implemented in sequence and without variation.[1]

The data collection for the implementation assessment and the evaluations studied in the outcome assessment occurred before the introduction of the new curriculum. We, therefore, believe it is important to provide information on both versions. Exhibit 2.1 presents a summary of the original version of the core curriculum upon which the outcome evaluation was based, and Exhibit 2.2 displays a summary of the updated curriculum.

In elementary schools that receive the D.A.R.E.® core curriculum, officers may also visit students in kindergarten through 4th grade to teach brief introductory (15- to 20-minute) lessons. Topics in this curriculum include personal safety, the consequences of taking medicine and using drugs, saying "no" when asked to engage in antisocial activities, and learning about feelings.

The D.A.R.E.® junior high school curriculum was originally developed to provide or reinforce information and skills that help students resist pressure to use drugs. Revisions were made in 1989 to include violence reduction, conflict resolution, and anger management. The 10 lessons are taught cooperatively by the officer and the classroom teacher. The lessons and activities (summarized in Exhibit 2.3) are implemented over a 10-day period as part of a required course, such as health, science, or social studies.

The senior high school curriculum also focuses on drug abuse and its effect on communities and young people (see Exhibit 2.4 for a summary of the lessons). The senior high school curriculum was designed to be taught over an 11-day period during health or another appropriate class. Responsibility for teaching the lessons is divided between the officer and the classroom teacher. Officers and teachers are trained together and are encouraged to be present during the entire 11-day period.

Because of the difficulties educators have continually faced persuading parents to attend school educational functions, the D.A.R.E.® parent curriculum was designed to be implemented where parents live and work. This curriculum consists of four or five 2-hour

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[1] Lesson 14 concerns gang activity and may be omitted in schools where gangs are not considered a problem.

Exhibit 2.1 D.A.R.E.®'s Original Core Curriculum

Session	Topic	Description
1	First visit/personal safety	Introduction of D.A.R.E.® and law enforcement officer; safety practices; discussion of personal rights
2	Drug use and misuse	Harmful effects from misuse of drugs
3	Consequences	Consequences of using and choosing not to use alcohol, marijuana, and other drugs
4	Resisting pressures	Sources of pressure; types of pressure to use drugs
5	Resistance techniques	Refusal strategies for different types of peer pressure
6	Building self-esteem	Identifying positive qualities in oneself; giving/receiving compliments; importance of self-image
7	Assertiveness	Personal rights/responsibilities discussion; situations calling for assertiveness skills
8	Managing stress without drugs	Identification of sources of stress; when stress can be helpful or harmful; ways to manage stress; deep breathing exercise
9	Media influences	Media influences on behavior; advertising techniques
10	Decisionmaking and risk taking	Risk-taking behaviors; reasonable and harmful risks; consequences of various choices; influences on decisions
11	Drug use alternatives	Reasons for using drugs; alternative activities
12	Role modeling	Meet older student leaders/role models who do not use drugs
13	Forming support system	Types of support groups; barriers to friendships; suggestions for overcoming these barriers
14	Ways to deal with gang pressures	Types of gang pressure; how gangs differ from groups; consequences of gang activity (optional)
15	D.A.R.E.® summary	D.A.R.E.® review
16	Taking a stand	Taking appropriate stand when pressured to use drugs
17	D.A.R.E.® culmination	Award assembly; recognition of participants

Exhibit 2.2 D.A.R.E.®'s Updated Core Curriculum

Lesson	Topic	Description
1	Introducing D.A.R.E.®	Acquaints students with the D.A.R.E.® officer; defines roles and responsibilities of students
2	Understanding the effects of mind-altering drugs	Presents basic facts about mind-altering drugs and harmful effects from misuse
3	Consequences	Presents consequences of using and choosing not to use alcohol and other drugs
4	Changing beliefs about drug use	Teaches students to identify sources and kinds of pressure; compares students' estimates of drug use with estimates reported in national surveys
5	Resistance techniques: Ways to say "NO"	Presents refusal strategies for different types of peer pressure
6	Building self-esteem	Teaches students to recognize positive qualities in themselves
7	Assertiveness: A response style	Teaches students to respond assertively in refusing offers to use drugs
8	Managing stress without drugs	Identifies stressors in students' lives
9	Reducing violence	Identifies nonviolent ways to deal with anger and disagreement
10	Media influences on drug use and violence	Teaches students to recognize media influence in presentations about tobacco, alcohol, other drugs, and violence
11	Making decisions about risky behavior	Teaches students decisionmaking skills to evaluate risks in situations involving using drugs and using weapons
12	Say "YES" to positive alternatives	Teaches students to identify and participate in positive alternative activities
13	Positive role modeling	Teaches students to identify ways high school students avoid drug use
14	Resisting gang and group violence	Identifies negative consequences of gang and group violence and ways to avoid becoming involved (optional)
15	Project D.A.R.E.® summary	Summarizes D.A.R.E.®; asks students questions about drug use and violence
16	Taking a stand	Puts student's commitment to be drug-free and to avoid violence in writing
17	D.A.R.E.® culmination	Reinforces the values and skills learned; recognizes individual achievement of all participants

Exhibit 2.3 D.A.R.E.®'s Junior High School Curriculum

Lesson	Topic	Description
1	Drug use and abuse	Helps students understand how drugs can change the way the mind and body function
2	Drugs, violence, and the law	Informs students about laws and school behavior codes regarding possession of substances and acts of violence; helps students understand their role in following these expected standards of conduct
3	Consequences	Explores how drug use affects every person living in a community
4	Assertive resistance	Makes students aware of pressures that influence people to use drugs; teaches assertiveness as a way to resist these pressures
5	Forming positive friendships	Helps students recognize ways individuals can reach out to form positive relationships
6	Resolving conflicts without violence	Explores ways of dealing with anger and conflict without resorting to acts of violence
7	Destructive ecology: Tagging and trashing	Helps students understand how destructive acts of vandalism against personal or public property or living things affect everyone
8	Pressure from gangs and gang violence	Makes students aware of kinds of pressures and violence they may encounter from gangs; helps them evaluate the consequences of choices available to them
9	Project D.A.R.E.® review activities	Provides an opportunity for students to review and strengthen what they learned in D.A.R.E.®
10	D.A.R.E.® to Be	Helps students act in their own best interest

Exhibit 2.4 D.A.R.E.®'s Senior High School Curriculum

Day	Topic	Description
1	Pretest/Introduction	Pretests students to measure knowledge and understanding of drug abuse and its effects on communities
2	Reducing the demand for drugs: A shared responsibility	Officer taught: Focuses on drug abuse and its correlation with increased risk for problem behaviors that result in negative consequences
3	Day 2 follow-up	Teacher taught: Focuses on the consequences of drug use for individuals, as well as the community
4	Communicating choices assertively	Officer taught: Teaches skills to communicate choices assertively in situations involving substance abuse
5	Drug-related behaviors and the law	Officer taught: Focuses on the purpose of laws and how drug-related behaviors can affect the balance between the need to maintain order and the right of an individual
6	Day 5 follow-up	Teacher taught: Focuses on blood-alcohol levels; uses cooperative learning groups and case studies to demonstrate risks involved in drug abuse
7	Drugs, media, and violence	Officer taught: Focuses on how drug abuse and the media can increase violent behavior
8,9	Managing anger and resolving conflict without drugs	Officer taught: Identifies positive ways of expressing and managing anger without the use of drugs
10	Day 8, 9 follow-up	Teacher taught: Focuses on the use of "I-message" statements
11	Evaluation/Posttest	Posttest of students: Evaluation of the program by students

Exhibit 2.5 D.A.R.E.®'s Parent Curriculum

Lesson	Topic	Description
1	Effective communication	Helps parents understand that self-esteem, listening, and communication skills are critical in adult-child communication
2	Risk Factors (two options):	Parents select Section A, B, or both
	(2A) Risk factors (yrs 0-8)	Addresses the risk factors of children from birth to age 8; provides an awareness of safety measures that can be used in the home to reduce likelihood of dangerous exposure to drugs; introduces strategies parents can use to reduce the likelihood that young children will be at risk of drug abuse
	(2B) Risk factors (early adolescents)	Introduces risk factors of substance use in early adolescents; introduces parents to basic drug identification and stages of adolescent chemical dependency
3	Youth pressure resistance skills	Helps parents in awareness and understanding of life skills, particularly in areas dealing with peer pressure and media influence; assists in strengthening the family network
4	Panel discussion	Initiates discussion by members of the community from a variety of backgrounds on the scope of local substance abuse; provides an exchange of ideas on resources and referrals

sessions generally held in the evenings (see Exhibit 2.5 for a summary of these lessons). Topics covered in this curriculum include developing better skills to interact with children, learning about peer pressures, and identifying signs and reducing risks of potential substance abuse.

D.A.R.E.® Officers and Training

Law enforcement agencies exercise considerable discretion in identifying qualified, motivated police officers to be trained as D.A.R.E.® officers. D.A.R.E.® officers must be full-time, uniformed officers with at least 2 years of experience. When selecting candidate officers, local police departments are encouraged to consider the officer's ability to interact with children, ability to organize, and ability to handle the unexpected, as well as whether the officer would provide an exemplary role model and refrain from sexual, racial, stereotypical, or inappropriate remarks (BJA, 1991b).

Selected officers undergo an intensive, 2-week course of at least 80 hours of training. Officers are trained not only in the core curriculum, but also in public speaking, teaching skills, and classroom management. Their performance is directly critiqued by assigned mentors, who are experienced and specially trained D.A.R.E.® officers.[2] Outside speakers and consultants are also used to instruct the officers in areas requiring special expertise (e.g., a psychologist may present information on the stages of child development). The core curriculum training course includes opportunities to practice lessons both with peers and in an actual classroom setting.

Additional training is provided for officers teaching the junior and senior high school and parent curricula. Officers teaching these curricula are required to be certified as a D.A.R.E.® officer and to have taught the core curriculum at least two semesters. In-service training is provided to review what officers have previously learned in light of their actual classroom experiences and to acquaint them with changes to the curricula. The time that D.A.R.E.® officers commit to the program varies considerably from one law enforcement jurisdiction to the next. For some officers, particularly those in large urban departments, teaching D.A.R.E.® is a full-time occupation. In departments that serve rural communities, D.A.R.E.® officers administer the program on a part-time basis, devoting the remainder of their time to other law enforcement tasks.

Once in the field, D.A.R.E.® officer performance is monitored by mentors who observe classroom presentations and evaluate performance. Mentors may also use input from school administrators, classroom teachers, health education coordinators, and advisory committees to provide officers with feedback on their presentations.

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[2] Instructors who teach and mentor officers must have taught the core curriculum at least one semester and must attend an additional 40 hours of accredited instruction.

D.A.R.E.® in the Context of Other School-Based Drug Use Prevention Programs

Considering that the D.A.R.E.® curricula were based on several preexisting school-based drug prevention curricula (primarily Project SMART), it is not surprising that the curricula closely resemble other programs in content. Exhibit 2.6 show that D.A.R.E.®'s core curriculum includes lessons that represent all three curricular strategies discussed earlier.

D.A.R.E.® differs from most other school-based drug prevention programs in the structure by which it is organized and implemented. First, D.A.R.E.® is implemented by law enforcement officers; most other programs are taught by teachers. Second, D.A.R.E.® officer training lasts 2 weeks and is highly intensive; most drug prevention program training for teachers is of a shorter duration. Third, D.A.R.E.® officers are strongly encouraged to deliver their lessons in sequence, departing only minimally (if at all) from their lesson plans; teachers are much more free to adapt curricula at will, emphasizing those areas they believe to be most salient or useful or integrating the drug prevention material into their general education curriculum. Fourth, D.A.R.E.® officer performance is often carefully monitored and evaluated; generally, the accountability mechanisms for teachers' implementation of their curricula are less structured. Fifth, the mission of D.A.R.E.® officers in the school is exclusively drug prevention; to most teachers, drug prevention is often only part of a larger curriculum.

Exhibit 2.6 Curricular Strategies Used in D.A.R.E.®'s Core Curriculum

		Curricular Strategies		
Session Skills	Topic	Cognitive	Affective	Social Skills
1	Introducing D.A.R.E.®	X		
2	Understanding the effects of mind-altering drugs	X		
3	Consequences	X		
4	Changing beliefs about drug use	X		X
5	Resistance techniques: Ways to say "NO"			X
6	Building self-esteem		X	
7	Assertiveness: A response style			X
8	Managing stress without taking drugs		X	
9	Reducing violence			X
10	Media influence on drug use and violence	X		
11	Making decisions about risky behaviors			X
12	Saying "YES" to positive alternatives		X	
13	Positive role modeling		X	X
14	Resisting gang and group violence			X
15	Project D.A.R.E.® summary	X	X	X
16	Taking a stand			X
17	D.A.R.E.® culmination		X	

SECTION II

IMPLEMENTATION ASSESSMENT

CHAPTER 3
NATIONAL AND REGIONAL OPERATIONS

In any consideration of the organization of D.A.R.E.® at the national and regional levels, it is important to remember that D.A.R.E.® is very much a grass-roots program. In essence, it is a product of memoranda of understanding between community law enforcement and local public school districts across the Nation. The primary purposes of the D.A.R.E.® hierarchy described in this chapter are to ensure the integrity of the D.A.R.E.® curriculum and the fidelity with which it is delivered; to develop and uphold standards for the integrity, coordination, and quality of D.A.R.E.® operations; and to provide support to D.A.R.E.® at the community level.

As we have said, in its degree of organization at the national and regional levels, D.A.R.E.® differs greatly from other school-based drug use prevention programs, most of which limit their activities to delivering packaged curricula to school districts and offering some level of training to teachers. In contrast, the D.A.R.E.® organization oversees all aspects of the prevention program, including the consistency with which it is implemented in the classroom. In this chapter, we discuss the functions of D.A.R.E.® America, the preeminent D.A.R.E.® organization, and its relationship with the

- D.A.R.E.® America RTC Advisory Board;
- State Training Centers, State Charter Organizations; and State D.A.R.E.® Coordinators;
- Los Angeles United School District (LAUSD); and
- D.A.R.E.® America Scientific Advisory Board.

We obtained much of the information for this chapter from an interview conducted in August 1994 with Glenn Levant, Executive Director of D.A.R.E.® America. This information is supplemented by relevant D.A.R.E.® documents. We also summarize a series of loosely structured interviews conducted in 1992 with representatives of the D.A.R.E.® America RTC Advisory Board.

D.A.R.E.® at the national, regional, State, and local levels is promoted, monitored, and overseen by D.A.R.E.® America, which is chartered as a nonprofit organization. As specified in its charter, D.A.R.E.® America has responsibility for a variety of key functions, including

- administering the D.A.R.E.® program,
- providing educational materials to communities implementing D.A.R.E.®,

- overseeing D.A.R.E.® officer training and ensuring its consistency,
- improving the curriculum, and
- providing support to D.A.R.E.® both nationally and internationally.

In 1988, the BJA awarded four grants to establish the RTCs that constitute the D.A.R.E.® America RTC Advisory Board, and a fifth RTC was established the following year. The RTCs are located in Arizona, California, Illinois, Virginia, and North Carolina, and the States associated with each are presented in Exhibit 3.1. The responsibilities of the RTCs include making recommendations to D.A.R.E.® America concerning the accreditation of State-level training centers. In addition, the RTCs provide oversight to the local D.A.R.E.® programs to ensure that the copyrighted curriculum is taught as specified. Educational specialists representing the five RTCs, together with staff of the LAUSD, are charged with curricular development, taking advice from the Scientific Advisory Board and other specialists. In Federal FY 1994, it is expected that the BJA grant, which in the past has flowed to the RTCs, will come directly to D.A.R.E.® America to support the RTCs.

D.A.R.E.® is also organized at the State level. In more than one-third of the States, D.A.R.E.® America has helped charter a nonprofit (501C3) organization, over which D.A.R.E.® America has oversight, and which is designed to support the program in that State. The board of the chartered organization typically comprises the State's attorney general, the superintendent of education, and prominent business and education people. The board of directors may also include a representative of the State's D.A.R.E.® Officers' Association (described below) as well as, in some States, a D.A.R.E.® coordinator whose prominence and position may vary considerably. It is expected that in time there will be D.A.R.E.® charter organizations in the remaining States. In those States that currently lack a charter organization, there is typically some individual identified as the State D.A.R.E.® coordinator who often is a State employee. This person's responsibilities include coordinating candidate selection and scheduling training for D.A.R.E.® officers, obtaining State funds to support D.A.R.E.® programs, providing local technical assistance, and overseeing policy development and implementation at the State level. D.A.R.E.® America meets with these individuals, and with the State charter organizations, on a quarterly basis.

In addition to D.A.R.E.® State charter organizations at the State level, a total of 42 States currently have developed State Training Centers (STCs), the purpose of which is to conduct training for prospective D.A.R.E.® officers. These centers are differentially accredited; all conduct training for prospective D.A.R.E.® officers in the core curriculum, while only some are accredited to teach the other curricula or to train D.A.R.E.® mentors. The STCs are supported both by the States and by D.A.R.E.® America. The level of activity of these centers varies considerably given the size of the State and demand for D.A.R.E.® officer training. At present, there are some 20,000 certified D.A.R.E.® officers.

D.A.R.E.® America also owns and protects the copyright to the D.A.R.E.® name, logo, and associated slogans. D.A.R.E.®'s name is considered a valuable intellectual property. D.A.R.E.® America approves all materials (e.g., bumper stickers) and celebrities used to promote the D.A.R.E.® program. In addition, the organization screens sponsors for fund-raising events to exclude companies manufacturing alcohol or tobacco products.

Together with the LAUSD, D.A.R.E.® America owns the copyright to the core curriculum. The superintendent of the LAUSD has been represented on the board of D.A.R.E.® America since 1983. Through the RTCs, D.A.R.E.® America monitors the implementation of D.A.R.E.® in each community and may withdraw its permission to use D.A.R.E.® if a local school district has improperly modified the curriculum. To fulfill its responsibility of improving the curriculum, D.A.R.E.® America established in 1993 a Scientific Advisory Board, which is chaired by Dr. Herb Kleber of the Center on Addiction and Substance Abuse (CASA) at Columbia University. Dr. Kleber was formally the chief official for demand reduction in the Bush Administration's White House Office of National Drug Control Policy (ONDCP). The board includes prevention specialists from across the Nation.

The National D.A.R.E.® Officers' Association, which D.A.R.E.® America helped to found in 1987, serves to improve communications among police officers within D.A.R.E.® The association now has a State D.A.R.E.® Officers' association in each of the 50 States. Each of the 18 other countries that have adopted the D.A.R.E.® program also has an association of D.A.R.E.® officers, although those association are not formally a part of the national association. However, all associations, both domestic and foreign, look to D.A.R.E.® America for guidance in matters of policy.

Finally, D.A.R.E.® America provides considerable support to communities implementing D.A.R.E.® in the form of the educational materials that support the curriculum. In some cases, D.A.R.E.® America offers communities direct financial support as well.

We collected further information by means of informal interviews and discussions we conducted with the coordinators and/or educational advisors of each of the five RTCs in January 1992. The RTC coordinators/advisors discussed with us a number of their needs and recommendations for the D.A.R.E.® program. Summaries of their discussions with us are presented below.

An increasing need for in-service training. RTC coordinators/advisors indicated that a substantial number of officers have received D.A.R.E.® training in the past decade.

However, they stressed that the original training of many officers may now be several years old. RTC coordinators/advisors indicated that although mechanisms for providing in-service training do exist, these mechanisms may not be sufficient. Furthermore, they suggested that because training of new officers already stretches available resources, the increasing need for in-service training for existing D.A.R.E.® officers will strain D.A.R.E.®'s budget further.

Exhibit 3.1 Jurisdictions of D.A.R.E.®'s Regional Training Centers

East RTC	Southeast RTC	Midwest RTC	Southwest RTC	West RTC
Connecticut	Alabama	Arkansas	Alaska	California*
Delaware	Florida	Illinois*	Arizona*	Hawaii
District of Columbia	Georgia	Indiana	Colorado	Idaho
Maine	Louisiana	Iowa	Kansas	Montana
Maryland	Mississippi	Kentucky	Nebraska	Nevada
Massachusetts	North Carolina*	Michigan	New Mexico	North Dakota
New Hampshire	South Carolina	Minnesota	Oklahoma	Oregon
New Jersey	Tennessee	Missouri	South Dakota	Washington
New York		Ohio	Texas	Wyoming
Pennsylvania		Wisconsin		Utah
Rhode Island				
Vermont				
Virginia*				
West Virginia				

*Indicates location of Regional Training Center.

The increasing need to train State D.A.R.E.® coordinators. RTC coordinators/advisors indicated that most States now have State D.A.R.E.® coordinators (see Chapter 4). However, they reported that many are relatively new in these positions or have received little formal information about how to conduct their jobs. They stated that coordinator training should include the responsibilities and roles of State D.A.R.E.® coordinators, as well as how they can effectively interact both with their RTC and the schools in their States. RTC coordinators/advisors reported that plans are currently under way to establish procedures to accredit State D.A.R.E.® coordinators.

The need to improve lines of communication and clarify lines of authority. RTC coordinators/advisors indicated that because of the lack of formal training and the lack of communication among State coordinators, many State D.A.R.E.® coordinators have had to learn their jobs by trial and error. They stated that although a certain amount of communication occurs among State D.A.R.E.® coordinators (especially among coordinators in neighboring States), increasing communication would greatly enhance efficiency by enabling coordinators to draw on the experiences of others instead of "reinventing the wheel."

RTC coordinators/advisors also indicated that State coordinators may need assistance with getting local programs to recognize developing lines of authority. For example, they stated that in the past, local programs worked directly with RTCs; they said that many local programs will need to be prompted to now work with the STC instead.

The need for increased D.A.R.E.® officer mentoring. At present, RTC coordinators/advisors reported that there is a well-developed system for monitoring D.A.R.E.® officer performance in the classroom. They reported that D.A.R.E.® mentors periodically monitor and evaluate officer performance by observing classes taught by the officer. They also indicated that teachers are given the opportunity to rate officer performance. They reported that D.A.R.E.® officers are informed of any problem areas, told how to correct these problems, and later reevaluated to ensure that the problem has been corrected. However, to be truly useful, RTC coordinators reported that these mentors should have the time and resources necessary to work closely with D.A.R.E.® officers to improve their performance.

The need for increased collaboration between education and law enforcement. RTC coordinators/advisors indicated that because D.A.R.E.® was created as a close partnership between the LAUSD and the Los Angeles Police Department, the program is dependent on a strong and continuing relationship between education and law enforcement at every level.

At the State level, RTC coordinators/advisors see close collaboration between the department of education and the organization administering D.A.R.E.® (typically related to law enforcement) as essential. They indicated that the institutional commitment of State Departments of Education to D.A.R.E.® is essential, in part, to help resolve any community-level problems. Further, they indicated that as administrators of DFSCA funds, State Departments of Education have an increasing role to play in providing guidance concerning the various components of a school district's comprehensive K-12 curriculum (including D.A.R.E.®) and how these components should be integrated to ensure a comprehensive approach. RTC coordinators indicated that ways in which State Departments of Education could play a role in assisting with the evaluation of D.A.R.E.® officer performance should be examined.

At the local level, RTC coordinators indicated that D.A.R.E.® is initiated when a school district invites a police department to teach the program. They reported that the police department nominates a candidate for D.A.R.E.® officer training, and the candidate must be acceptable to the school district administration. In the classroom, they stated, the role of the teacher is evolving from an observer and monitor of the officer's performance to an active partner in D.A.R.E.® instruction.

The need to maintain limits to the D.A.R.E.® "bureaucracy". RTC coordinators/advisors stressed that pressures on D.A.R.E.® to expand its operations are considerable. They indicated that as an institution, D.A.R.E.® remains committed to maintaining high standards at the community level. They reported that as the role of the State coordinator continues to become more important in this regard, the need for the RTCs to provide technical assistance and to monitor State activities becomes even more crucial. RTC coordinators/advisors reported that because existing RTC resources are already strained by current demands, further growth at the national level seems inevitable. They indicated that even if support for such growth exists, however, there is concern that a bureaucracy will develop that may weaken the "grass-roots" nature of the enterprise. Coordinators/advisors indicated that it will be a challenge to increase the size and capabilities of the D.A.R.E.® bureaucracy to manage and control this burgeoning program with the need to keep the bureaucracy streamlined and responsive to the needs of the communities that D.A.R.E.® serves.

The need to locate permanent funding sources. RTC coordinators/advisors indicated that D.A.R.E.® currently receives substantial support from DFSCA. However, they feel that Federal DFSCA funds appear to have reached a plateau in the past 3 years and are likely to be subjected to budget cuts in the future. RTC coordinators/advisors fear that D.A.R.E.® could be reduced or even eliminated as a line item. Regardless, they reported that Federal funding may have been a mixed blessing, insofar as Federal support may displace local efforts to secure the resources necessary to implement the program.

Summary

In this chapter, we focused on the national- and regional-level operations of D.A.R.E.® We conducted unstructured interviews with the executive director of D.A.R.E.® America and representatives from each of the RTCs. We also reviewed available documents.

D.A.R.E.® is a grass-roots program that operates through memoranda of understanding between community law enforcement agencies and local schools. D.A.R.E.® America, a nonprofit organization, coordinates, promotes, monitors, and assumes ultimate responsibility for the D.A.R.E.® program at all levels. The D.A.R.E.® America RTC Advisory Board, which is composed of staff from the RTCs, serves in an advisory capacity to D.A.R.E.® America. In addition to making recommendations to D.A.R.E.® America, RTCs are responsible for oversight of the local D.A.R.E.® programs and coordinating and conducting D.A.R.E.® officer training. Organizations and individuals working to promote and coordinate the D.A.R.E.® program at the State level include State-chartered nonprofit organizations, State D.A.R.E.® officers' associations, and State D.A.R.E.® coordinators. Also at the State level are STCs that provide training to D.A.R.E.® officers.

Curriculum development and changes are the responsibility of educational specialists from each of the RTCs, together with staff from the LAUSD. A Scientific Advisory Board, composed of leading prevention specialists, assists in these endeavors.

Our interviews with the RTC coordinators indicated the following key issues: a need for increased in-service training and mentoring, providing training to State D.A.R.E.® coordinators, improving communication and collaboration between agencies, maintaining limits on the D.A.R.E.® bureaucracy, and locating permanent funding sources.

Findings from this chapter and resulting recommendations are discussed fully in Chapter 8.

CHAPTER 4
STATE-LEVEL OPERATIONS

In this chapter, we present the second component of the implementation assessment, a survey of those individuals who generally manage the State-level D.A.R.E.® operations: the State D.A.R.E.® coordinators. This component was conducted to fulfill NIJ's request for information concerning:

- features common to most D.A.R.E.® programs,
- funding arrangements for D.A.R.E.®,
- management of D.A.R.E.® and supporting organizations, and
- availability of the D.A.R.E.® curricula.

The primary objective of this component was, of course, to provide information concerning D.A.R.E.®'s State-level operations. As a secondary objective, we collected preliminary information to facilitate sample selection for the school district drug prevention coordinators survey, the results of which we present in Chapter 5.

This chapter covers both the methodology for and findings from the survey of State D.A.R.E.® coordinators. The findings section presents data concerning the administration, funding, implementation, challenges, and problems of State-level D.A.R.E.® operations.

Methodology

Instrument Design

We based the content of the State D.A.R.E.® coordinators' survey on the research issues raised in NIJ's solicitation, discussions with NIJ personnel, a review of the literature on D.A.R.E.®'s structure and operations, and an examination of prior studies of school-based drug education conducted at RTI. Recognizing that State D.A.R.E.® coordinators have considerable demands on their time, we designed the instrument to be as brief and straightforward as possible. To minimize ambiguity and burden, we used mostly close-ended items. A few open-ended questions were included to encourage respondents to provide detailed information.

The survey instrument was composed of two parts: a questionnaire and a list of school districts. The questionnaire contained items concerning administration, funding, and implementation of the State D.A.R.E.® program. The list of school districts contained those districts we selected from that State for the first-phase sample of the school district drug prevention coordinators' survey (see Chapter 5). We asked State coordinators to indicate whether each district on their list used D.A.R.E.®, and we then used this information to draw the second-phase sample for the school district survey.

We pretested the instrument on three State D.A.R.E.® coordinators in early February 1992. We also shared the instrument with all five RTC coordinators and requested their feedback. We incorporated the responses of pretest participants, as well the comments of the RTC coordinators, the NIJ program manager, and other alcohol and drug prevention program experts into the final draft of the data collection instrument. A copy of the survey instrument and other data collection materials can be found in Appendix D.

Data Collection

In January 1992, the RTC coordinators provided us with lists of names and addresses of State D.A.R.E.® coordinators. Based on this information, we identified 44 States with D.A.R.E.® coordinators. We mailed each coordinator a package containing cover letters from the D.A.R.E.® America RTC Advisory Board and RTI, a questionnaire, and a list of school districts in the coordinator's State.[1] The cover letter from the RTC Advisory Board expressed support for the research effort and encouraged participation. The cover letter from RTI explained the study, provided assurances that all information would be kept strictly confidential, and requested copies of any pertinent State documents concerning the organization and/or administration of D.A.R.E.®

We mailed the packages to the State D.A.R.E.® coordinators on February 18, 1992. Two weeks after the initial mailout, we contacted nonresponders by telephone. We made repeated attempts by mail and telephone to secure the return of completed materials or to collect the information by phone. The RTCs were again of great assistance to us in urging coordinators to return surveys.

Of the 44 respondents identified by the RTC coordinators, 39 completed the instrument.[2] For purposes of verification, one question in the survey asked respondents to confirm that the State had a D.A.R.E.® coordinator. Although four States responded that they did not have such a position, we determined after some investigation that they did have a person who performs a coordinator's role. Respondents from all four of these States reported that administration of the State D.A.R.E.® program was one of several roles they performed as supervisors or directors in law enforcement agencies. We, therefore, did not delete these responses from our analysis. It should be noted, however, that because of skip patterns in the survey instrument, these four respondents did not complete survey items specifically directed to the State D.A.R.E.® coordinator.

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[1] Because six States did not have State D.A.R.E.® coordinators, we sought an alternative way of determining whether first-phase sample school districts in those States used D.A.R.E.® For those States, we mailed State DFSCA coordinators packages containing a RTI cover letter and the list of school districts. These States did not receive a questionnaire.

[2] Three of the six DFSCA coordinators completed and returned D.A.R.E.® status information about their lists of school districts.

Findings

Administration

To address issues raised in the NIJ solicitation concerning management of the D.A.R.E.® program, we asked a series of questions about the agencies involved in D.A.R.E.®'s administration at the State level, the functions of each agency, and the relationships among them. Findings from these questions are presented below.

Agencies Involved. We first asked respondents to report the agency with primary responsibility for managing the State D.A.R.E.® program. As shown in Exhibit 4.1, the great majority of States indicated that a law enforcement or criminal justice agency was entrusted with this responsibility.

Exhibit 4.1 Percentage of State D.A.R.E.® Programs Primarily Managed by Various State and Local Agencies

Agency (N=39)	%
State Department of Public Safety	17.8
State Police	15.4
State Investigative Agency	7.7
State Highway Patrol	5.1
Other State Criminal Justice Agency	10.3
Governor's Office	7.7
State Attorney General's Office	10.3
State Department of Education/ Public Instruction	2.6
City/County Law Enforcement Agency	12.8
D.A.R.E.® Agency	5.1
Board on Public Safety Training and Standards	2.6
Association of Chiefs of Police	2.6
	100.0

States are encouraged to establish statewide boards that will help ensure that the State D.A.R.E.® program accommodates competing points of view, remains responsive to the needs of its constituency, and continues as a permanent component of State prevention activities (BJA, 1988). We asked coordinators if the State had a policy advisory board (PAB), and 15 States (38%) reported affirmatively.

To explore PAB membership, we asked the 15 coordinators with PABs to indicate the agencies/individuals who held memberships on these boards and to indicate the representative who chaired it. Exhibit 4.2 shows that 65% or more of the States with PABs listed State and local educational agencies, local law enforcement agencies, and State D.A.R.E.® officer associations among their members. The leadership role of the PABs was primarily held by law enforcement representatives. The board was chaired by State law enforcement agencies in six States, by local law enforcement in three States, by local education agencies in two States, by the State Department of Education in one State, by another State agency in one State, and by an Association of Chiefs of Police in one State.[3]

Exhibit 4.2 Percentage of States with D.A.R.E.® Policy Advisory Boards Having Representation of Various Agencies and Individuals on Such Boards

Agency/Individual (N=15)	%[1]
State Law Enforcement Agency	60.0
Local Law Enforcement Agency	80.0
Representatives for Other Criminal Justice Agencies	13.3
State D.A.R.E.® Officers' Association	73.3
Police Associations	20.0
State Department of Education/Public Instruction	86.7
Regional, County, or Local Education	66.7
Associations of Educators	26.7
University Representative	6.7
State Alcohol/Drug Abuse Agency	46.7
Governor's Office	26.7
State Legislature	20.0
State Judiciary	13.3
Other State Agency	33.3
Parents	26.7
Community-Based Organizations	26.7
Citizens-at-Large	13.3
Business Representatives	13.3

[1] Column percents will total more than 100.0% because multiple responses could be indicated by the same respondent.

Yet another agency encouraged to become involved in D.A.R.E.® is the State Department of Education. States are encouraged to retain an educational consultant to act as a liaison between the State Department of Education, local school administrators, and D.A.R.E.® instructors (BJA, 1988). We, therefore, asked if the State had an educational consultant. Twenty-five (64%) of the 39 respondents reported having an educational advisor, and two States reported two advisors. Further, we inquired about the employers of these consultants and found that educational systems employed 17 of the 27 educational advisors and law enforcement agencies employed 4 (Exhibit 4.3).

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[3] Information on the chairperson was missing for one State.

Exhibit 4.3 Percentage of States with D.A.R.E.® Educational Advisors Reporting to the Employers of These Advisors

Employer (N=25)	%[1]
State Department of Education	20.0
Local School Systems	36.0
Boards of Education	12.0
College/University	4.0
State Highway Patrol	8.0
Other Law Enforcement Agencies	8.0
Other State Agencies	12.0
Private Consultants	8.0

[1] Column percents will total more than 100.0% because multiple responses could be indicated by the same respondent.

Functions. Next, we sought to examine the responsibilities of both the State D.A.R.E.® coordinators and the PABs by asking respondents to indicate the functions of each agency (Exhibit 4.4). The most frequently mentioned roles of State D.A.R.E.® coordinators were D.A.R.E.® advocacy and officer training within the State. The most frequently mentioned roles of PABs were formulating State policy, exploring funding sources, and advocating for D.A.R.E.®

We also asked respondents to list functions performed by the State D.A.R.E.® coordinators and the PABs that were not provided as close-ended response options. Additional duties mentioned for State D.A.R.E.® coordinators included

- acting as liaison to other D.A.R.E.® agencies (three States),
- distributing D.A.R.E.® materials (three States),
- making and managing grant applications (two States),
- training D.A.R.E.® officers for schools on military bases (one State),
- recertifying officers (one State),
- selecting officers (one State), and
- serving as a clearinghouse for information (one State).

Other duties performed by the PABs included long-term planning (two States) and the selection and supervision of the State D.A.R.E.® coordinator (one State).

Exhibit 4.4 Percentage of State D.A.R.E.® Coordinators and Policy Advisory Boards Performing Various Functions

Functions	State D.A.R.E.® Coordinator (N=35)	Policy Advisory Board (N=15)
Formulating State policy	82.9	86.7
Advocating D.A.R.E.®	97.1	66.7
Exploring funding sources	80.0	73.3
Distributing funds	34.3	33.3
Training D.A.R.E.® officers within the State	91.4	26.7
Training D.A.R.E.® officers from other States	68.6	26.7
Follow-up in-service training	77.1	33.3
Direct student instruction	48.6	20.0
Implementation/development of local sites	80.0	26.7
On-site monitoring of D.A.R.E.® officers activities	71.4	33.3
Program evaluation	77.1	53.3
Approving school districts' involvement with D.A.R.E.®	45.7	60.0
Approving local law enforcements' involvement with D.A.R.E.®	71.4	26.7
D.A.R.E.® officer certification	82.9	60.0
D.A.R.E.® officer decertification	68.6	53.3

Communication. As mentioned earlier, State D.A.R.E.® programs are strongly encouraged to develop relationships with State Departments of Education. Having an educational consultant, however, does not guarantee communication between the agencies. We, therefore, asked the State coordinators about how well they communicate with the Department of Education. Most of the State D.A.R.E.® coordinators reported having a great deal (35%) or some (47%) communication with the State Department of Education. In six States, coordinators reported little communication, and only one reported none. Seven coordinators (20%) reported having a signed agreement between the State D.A.R.E.® coordinator and the Department of Education.

We also asked coordinators about the level of communication between the PABs and the State Department of Education. Most of the coordinators reported that PABs had a great deal of communication with the Department of Education. Eight of the 15 States with PABs reported that their boards had a great deal of communication, three reported some communication, three reported little, and one reported none.

Only one State reported that both the State D.A.R.E.® coordinator and the PAB had little communication with the Department of Education.

Funding

The NIJ solicitation also requested information on funding arrangements for D.A.R.E.® To this end, we asked respondents to report the amount of funding received by the primary managing agency.[4] Exhibit 4.5 presents ranges of funding received for D.A.R.E.® at the State level. Four States reported that no funds were received for State-level D.A.R.E.® operations, and two State coordinators were unable to provide this information.

The mean amount of funds received by the primary managing agency for operating D.A.R.E.® at the State level in the 1991-1992 school year (excluding $0 values) was $273,657; funding ranged from $25,000 to $2,635,000. The total amount received by the responding States was $9,260,700.

Exhibit 4.5 Funding Received in 1991-1992 School Year for State-Level D.A.R.E.® Operations

Funding Range (N=39)	%
$ 0	10.3
$ 25,000 - 49,000	12.8
$ 50,000 - 99,999	28.2
$100,000 - 299,999	25.6
$300,000 +	17.9
Data Unavailable	5.1

We asked the 33 respondents who reported the amount of funding for State-level operations to identify the sources of this funding (Exhibit 4.6). Four of the 33 respondents did not answer this question. We also asked coordinators to indicate the percentage of funds received from each source. Fifteen States indicated that all funds were received from one source (six from the BJA, four from State governors' grants, two from the State Department of Education, two from legislative funds, and one from other sources). Eight States reported that funding was received from two sources, and eight States reported receiving funding from three or more sources.

Additionally, we asked respondents to report other sources of funding not mentioned in the close-ended response options. Responses included State and local matching funds, special education trust funds, State penalty assessment funds, funds from the

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[4] Because we wanted funding information only for State-level operations, we instructed respondents to include funding received for administration and training functions, but not to include Federal or State money that was used to support local programs directly.

Exhibit 4.6 Number of States Receiving Funds for State-Level Operations from Sources in 1991-1992 School Year

Funding Source (N=31)	%
Bureau of Justice Assistance Grant	58.1
Grant from Governor's Office	29.0
State Department of Education	12.9
Legislative Funds	25.8
Grant from Other State Agency	29.0
Local Funds	9.7
Corporate Donations	9.7
Individual Donations	3.2
Civic or Community Groups	3.2
D.A.R.E.® America	3.2*

*As indicated by Question 2 of the State D.A.R.E.® coordinator survey, this information refers to funding of State-level D.A.R.E.® programs only. D.A.R.E.® America has informed us that all State-level programs receive support from D.A.R.E.® America (Glenn Levant, personal communication, August 9, 1994).

Office of Juvenile Justice and Delinquency Prevention (OJJDP), fund-raisers, and Federal forfeiture funds.

State Training Centers

As mentioned in Chapter 3, one goal of the RTCs has been to develop STCs in their geographic areas. Increasingly, RTCs have adopted a "train the trainer" model to prepare STCs in their jurisdiction to conduct their own D.A.R.E.® officer training and certification procedures. We, therefore, asked coordinators whether their State had its own STC. About 87% (34 States) reported affirmatively. One of the five States without a training center reported that the State was in the process of establishing a training center.

Implementation

To obtain a general idea of the level of implementation of each of D.A.R.E.®'s curricula, we asked respondents to indicate each curriculum used in the State during the 1991-1992 school year. All respondents reported that the core curriculum and the K-4 visitations were used in at least one school in the State. Furthermore, 28 States (72%) implemented the junior high curriculum, 26 States (67%) implemented the senior high school curriculum, and 9 States (23%) implemented the parent curriculum in at least one school.

Challenges and Problems

To acquire an understanding of the challenges and problems facing D.A.R.E.® and the State D.A.R.E.® coordinator in the coming years, we asked two open-ended questions about these issues. We categorized the responses and counted the number of State coordinators indicating each category. (We advise caution in using these findings to make recommendations given the small number of coordinators mentioning each category.) First, we asked respondents to identify the most significant issues they face in working with the State's Department of Education.[5] The two most common responses were improving communication between agencies (mentioned by eight States) and acquiring a full-time educational advisor (mentioned by seven States). Most of the other responses were specific actions that coordinators wanted the State Department of Education to undertake, such as

- assisting with program evaluation and monitoring D.A.R.E.® officers (six States),
- formally mandating the D.A.R.E.® program (three States),
- understanding the role of law enforcement in education (three States),
- assisting with funding for D.A.R.E.® (three States),
- providing greater support for the D.A.R.E.® program (two States),
- assisting in training programs (one State), and
- helping resolve problems between officers and teachers (one State).

We then asked respondents to indicate the most significant issues facing the State D.A.R.E.® coordinator.[6] It should be noted that most of these issues could be mentioned by coordinators of other drug prevention programs, as well as coordinators of D.A.R.E.® Most of the responses centered on funding, communication, evaluation, and training. The responses, by category, were as follows:

Funding

- maintaining or increasing funding (13 States)
- locating funding sources (8 States)
- locating funding specifically for training (6 States)

Communication

- increasing communication between D.A.R.E.® agencies at the local, regional, and national levels (10 States)
- improving relations with State Department of Education (4 States)
- coping with the disorganization of the program (4 States)
- improving public relations (3 States)

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[5] Five respondents did not answer this question.

[6] Only one respondent did not answer this question.

- keeping up with constantly shifting policies of the D.A.R.E.® America RTC Advisory Board (2 States)

Evaluation

- monitoring officers in the classroom (8 States)
- evaluating the program (4 States)

Training

- improving training (3 States)
- handling problem officers (2 States)
- obtaining STC certification (1 State)

Staffing

- increasing staffing (6 States)
- formally establishing a State D.A.R.E.® coordinator position (2 States)
- forming a PAB (2 States)

Expansion

- expanding D.A.R.E.® to other grades or schools (7 States).

Summary

This chapter focused on a survey of the administrators of the State D.A.R.E.® programs. Thirty-nine of the 44 States with State D.A.R.E.® coordinators responded to the survey.

We found that most of the State D.A.R.E.® programs are managed by law enforcement or criminal justice agencies and that most retain educational consultants. About two-fifths of the States had PABs. Most of the coordinators reported high levels of communication between themselves and the State Department of Education. They also reported high levels of communication between the PABs and the Department of Education. Most States received at least $50,000 in funding for training and administrative purposes, and most States had their own STC.

Findings from this chapter and resulting recommendations are discussed fully in Chapter 8.

CHAPTER 5
SCHOOL DISTRICT DRUG PREVENTION COORDINATOR SURVEY

A survey of school district drug prevention coordinators was the main component of our implementation assessment. This component of the assessment was conducted to fulfill NIJ's request for information about the implementation of D.A.R.E.® and other school-based drug prevention programs at the local level. NIJ specifically requested information on the following questions:

- Who usually manages the D.A.R.E.® program at the local level?
- How involved in D.A.R.E.® are classroom teachers, churches, and community groups?
- How extensively are D.A.R.E.® and other school-based alcohol and other drug (AOD) prevention programs implemented nationwide in terms of geography, target populations (such as ethnic groups, economic strata, and urbanicity), and grade levels?
- How do other AOD programs compare with D.A.R.E.® and D.A.R.E.® with them?
- What are local funding arrangements for D.A.R.E.® and other AOD programs? How do these resources affect implementation?

A careful reading of these questions reveals that NIJ had three primary objectives: (a) to secure information about the administration of D.A.R.E.®, (b) to develop estimates of the national prevalence of D.A.R.E.® and other AOD programs, and (c) to make comparisons between D.A.R.E.® and other AOD programs on a variety of issues.

RTI staff developed and conducted a comprehensive survey of school district drug prevention coordinators that addressed each of the above-mentioned objectives and questions. We selected drug prevention coordinators as respondents, as opposed to classroom teachers or police officers, because we believed that drug prevention coordinators were the school district staff members best able to provide us with a broad perspective on all drug prevention activities in the district, including both D.A.R.E.® and other AOD prevention programs.

This chapter presents the methodology and findings for this survey. We should note that for this chapter the results we display will be descriptive, as opposed to explanatory, in nature. That is, our purpose is to report what the school district drug prevention coordinators have told us, and not attempt to explain why they responded as they did. Although efforts to explain our respondents' answer are feasible, we believe they would ultimately prove unsatisfactory because our explanatory variables (e.g., the school districts' racial balance or percentage of youth in poverty) are very limited, and any differences we find may be misleading.

The findings section first presents information we received from districts with D.A.R.E.®, followed by estimates of the numbers of districts with D.A.R.E.® and other AOD programs, and comparisons of D.A.R.E.® with other AOD programs. At the end of the findings section, we also provide some general information about drug policies in all the districts surveyed.

Methodology

Sample Design

The sample design for the school district drug prevention coordinators' survey was a two-phased stratified random sample. The two-phases of the sample design was necessary to meet the multiple goals of this survey. The goal of the first-phase sample was to produce estimates by region, district size, socioeconomic status (SES) categories, ethnicity categories, and urbanicity. The goal of the second-phase sample was to enable comparisons between districts with and without D.A.R.E.® A detailed discussion of each phase of the sample design is discussed below.

Sampling frame. The first step in our sampling design was to obtain a list of public school districts nationwide. We obtained such a list from Quality Educational Data (QED) Inc., of Denver, Colorado. The QED file, which is updated every summer, lists all public school districts nationwide and contains a wealth of useful information for each school district. We used this file as our sampling frame. Information that we used from this file included the school district's

- SES (defined as the percentage of children in the district below poverty level),
- urbanicity (defined as urban, suburban, or rural),[1]
- ethnicity (defined as the percentage of children in the district who were black or Hispanic), and
- district size (defined as the number of students enrolled in the district).

For each of the 14,715 districts on the QED file, we created five new variables that we later used for stratification and weighting purposes. First, we created a region variable that was based on the jurisdictions of D.A.R.E.®'s five RTCs (see Chapter 3, Exhibit 3.1). Next, to keep the total number of stratum cells within reasonable bounds, we dichotomized urbanicity, SES, ethnicity, and district size.[2] We first collapsed the urban and suburban categories on the QED file into one category. We computed percentiles for minority status, SES, and district size within each region-by-urbanicity group. We then used the median of each variable to define two categories (low/high) for each of the three variables. The number and percentage of school districts in the sampling frame in each of the strata are presented in Appendix A, Exhibit A.1.

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[1] Rural was defined as outside an Metropolitan Statistical Area (MSA), urban as central city, and suburban as area surrounding central city but still within the counties constituting an MSA.

First-Phase Sampling. The goal of the first-phase of our sampling design was to ensure that we selected a nationally representative sample of school districts. Additionally, we wanted to ensure that districts in each region, urbanicity category, SES category, minority status category, and district size category were adequately sampled. Therefore, our first-phase sample was a stratified random sample.

The first step in selecting our first-phase sample was to define each strata. We initially constructed 10 region-by-urbanicity strata by crossing the 5 regional strata with the 2 urbanicity strata. We then crossed each of these 10 strata with 2 SES categories (resulting in 20 strata). We then crossed each of those 20 strata by minority status (resulting in 40 strata). Finally, we crossed each of those 40 strata by district size (resulting in 80 strata). The number of school districts in the sampling frame in each of the 80 strata is presented in Appendix A, Exhibit A.2.

The next step in our sampling design was to determine how districts from each strata would be selected for inclusion in the first-phase sample. We assayed two methods of allocating the sample to strata. In the first method, we assigned equal sample sizes across strata (i.e., we sampled 15 districts from every stratum regardless of whether the stratum in the sampling frame contained 15 or 200 districts). This method would have ensured good precision across strata. In the second method, we assigned sample sizes proportional to the frame size within each stratum. For example, if 5% of the districts in the sampling frame were in a particular stratum, proportional sampling would have ensured that 5% of the first-phase sample would be allocated to that same stratum. Unlike equal allocation, proportional allocation yields approximately equal sampling weights, reduces variance, and thus provides better precision for overall survey estimates.

Because of its clear advantages, we chose proportional sampling. Thus, we randomly selected a proportional number of school districts within each of the 80 strata. The first-phase sample consisted of 1,500 school districts. Exhibits displaying the sample allocation to strata are provided in Appendix A, Exhibits A.3 and A.4.

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[2] It was important for the stability of survey estimates and their variances to limit the number of strata.

Second-Phase Sampling. The goal of the second-phase of our sampling design was to ensure that the second-phase sample included both D.A.R.E.® and non-D.A.R.E.® school districts. To make this determination, we asked State D.A.R.E.® or DFSCA coordinators to classify the 1,500 school districts in the first-phase sample as either D.A.R.E.® or non-D.A.R.E.® districts (see Chapter 4). Because some State coordinators did not return this information or only partially completed the information, we created a third category of school districts with an unknown D.A.R.E.® status. State coordinators reported that 43% of the sampled districts used D.A.R.E.® and 40% did not; D.A.R.E.® status was unknown for 17% of the districts. Exhibit A.5 in Appendix A displays the responses of the State coordinators on the D.A.R.E.® status of the first-phase sample by region.

The next step in selecting our second-phase sample was to determine the number of districts to be selected. Calculations to determine the number of districts needed in the second-phase sample were based first on the type of analysis we planned to conduct and second on an anticipated 80% response rate. Because we calculated that 400 responding school districts were necessary to achieve sufficient statistical power and precision, we selected a second-phase sample of 500 school districts.

Finally, we used the classifications provided by the State coordinators to select proportional numbers of school districts with D.A.R.E.®, without D.A.R.E.®, and with unknown D.A.R.E.® status across the five regions. Thus, we selected 215 school districts with D.A.R.E.®, 200 without D.A.R.E.®, and 85 with unknown D.A.R.E.® status. Exhibit A.6 in Appendix A displays the second-phase sample by region and D.A.R.E.® status.

Survey Estimation. All survey estimates were computed using software developed at RTI specifically for the analysis of surveys based on complex sample designs. We computed analysis weights that took into account the two-phase stratified sample design. Weighted data provides a less biased estimate than unweighted data because the weighted data more accurately represents the true population. The weights varied across strata based on region, ethnic composition, urbanicity, SES, and size of the school district. Analysis weights were computed as the product of the first-phase sample weight and the second-phase sample weight. Sampling weights were also adjusted for nonresponse. We performed quality checks on the analysis weights to ensure that the sum of the analysis weights coincides with the number of districts in the frame. We also examined the variability of the analyses weights and their impact on survey variances.

Instrument Design

RTI staff determined the contents of the school district drug prevention coordinators' survey based on the research issues raised in NIJ's solicitation, discussions with NIJ personnel, a review of the literature, and examination of the studies of drug education programming previously conducted at RTI. We used close-ended items whenever possible to minimize ambiguity and burden. A few open-ended questions were included to encourage respondents to provide detailed information.

All drug prevention coordinators completed a set of core items that were designed to provide background information about the district and about the specific drug prevention curricula used. Additionally, coordinators in districts using D.A.R.E.®, alone or in combination with other drug prevention curricula, completed a set of items concerning the D.A.R.E.® program only. Coordinators in districts using other AOD prevention programs, alone or in combination with D.A.R.E.®, completed a set of items concerning other AOD (i.e., non-D.A.R.E.®) programs only. Therefore, school districts implementing D.A.R.E.® and other AOD programs answered both sets of items.

After submitting the data collection instrument to our NIJ program manager for comment and discussion, we formally pretested all data collection materials and procedures. Both regional and State DFSCA coordinators assisted in identifying pretest subjects. Seven school district drug prevention coordinators (two in New York, two in South Dakota, one in North Carolina, one in Rhode Island, and one in South Carolina) completed a pretest questionnaire in early April 1992.

We used the responses of pretest participants, as well as the comments of our NIJ program manager and other AOD prevention program experts, to make final decisions on the data collection procedures and instruments. A copy of the survey instrument and other data collection materials for this component of the study can be found in Appendix D.

Data Collection

On May 1, 1992, we mailed a cover letter, questionnaire, and prepaid return envelope to school district drug prevention coordinators in each of the 500 selected school districts. The cover letter included a brief statement of study objectives, information on how the data would be used, and confidentiality assurances. Approximately 2 weeks after the initial mailing, we sent postcards to coordinators who had not responded. The postcard asked if the initial packet had been received, reminded the coordinator of the importance of the study, and offered the RTI toll-free number in case assistance was needed. Upon request, we provided duplicate mailouts.

Four packages were returned as undeliverable. Each of these was followed up by telephone inquiry to ascertain the correct address. We obtained correct addresses for three of the four returned packages and remailed the material. The remaining school district had recently merged with another school district. Because this merged district was already included in the sample, the duplicate was dropped.

We began making follow-up telephone calls to nonresponders approximately 2 weeks after the reminder postcards were mailed. Follow-up phone calls were made by trained RTI telephone interviewers between June 2 and July 15, 1992. Interviewers encouraged coordinators to complete and return their instruments as soon as possible. Those coordinators who indicated to interviewers that they would not otherwise complete the instrument were asked to complete the survey over the telephone. The survey instrument was exactly the same for both telephone and mail administration. The final response rate was 85.6%, which considerably surpassed our expected response rate of 80%. The final sample disposition is presented in Exhibit 5.1.

Exhibit 5.1 Final Sample Disposition

	N	%
Completed by phone	289	57.8
Completed by mail	139	27.8
Refused	8	1.6
No response	63	12.6
Duplicate	1	0.2

As indicated, we completed almost twice as many interviews by phone as by mail. We attribute this to several factors. First, phone surveys traditionally have higher response rates than mail surveys. Second, the questionnaires were not mailed until late in the school year; therefore, coordinators may have had end-of-the-year obligations that limited the amount of time they could spend on additional duties. Third, the part of the instrument that asked about each of the packaged drug prevention curricula was imposing; we believe that having the interviewers read these questions to the respondents may have made answering them less burdensome. Because the information gathered in this survey was not sensitive in nature, we believe that data obtained via both methods of administration are comparable.

Returned questionnaires were delivered to a check-in station where they were logged in, coded, manually edited, keyed, and key verified. We implemented machine-editing procedures to verify and correct skip patterns and logical inconsistencies. We recontacted a few school district drug prevention coordinators to resolve problematic responses, such as incomplete or contradictory information.

Findings

Administration of D.A.R.E.®

The first objective of this survey was to obtain information about the administration of D.A.R.E.® at the local level. This section presents findings concerning the implementation, administration, participation of teachers and the community in the D.A.R.E.® program, integration and coordination of D.A.R.E.® with other school-based drug prevention efforts, problems with D.A.R.E.®, and future plans for the use of D.A.R.E.® Data from survey items asked only of the districts with D.A.R.E.® are presented in this section.

Implementation. In the 1991-1992 school year, D.A.R.E.® was implemented in 51.8%, or 222, of the school districts surveyed. Some 42% of all school districts surveyed used the core curriculum, 17% used K-4 lessons, 11% implemented the junior high school curriculum, 3% used the senior high school curriculum, and 3% used the parent curriculum.

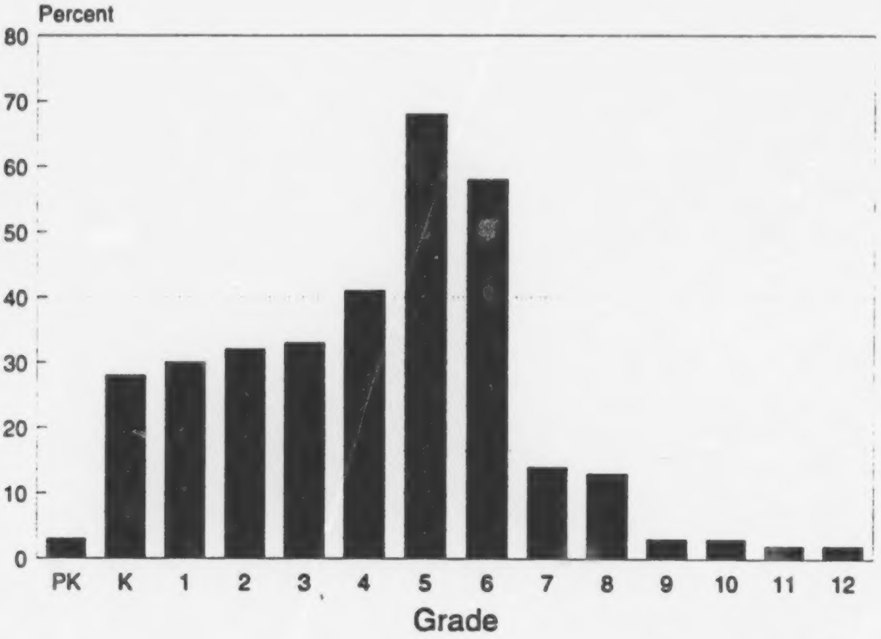
Of the 222 school districts with D.A.R.E.®, the great majority (81%) implemented the core curriculum, around 33% used the K-4 visitations, 22% used the junior high school curriculum, 6% implemented the senior high school curriculum, and 5% used the parent curriculum. We further asked the respondents to indicate every grade in which the D.A.R.E.® curricula were used. Exhibit 5.2 displays the percentage of school districts with D.A.R.E.® implementing the program at each grade. Almost 70% of the districts with D.A.R.E.® implemented the curriculum in 5th-grade classes, and almost 60% used it in 6th-grade classes. Thus, a substantial number of districts implemented the core curriculum in both grades, which probably reflects the different cutoff grades separating elementary from junior high or middle schools in that district.

Administration. One objective of NIJ's solicitation was to ascertain what agencies usually manage D.A.R.E.® and have responsibility for various aspects of the program at the local level. To address these issues, we first asked coordinators to report all agencies managing D.A.R.E.® Around 81% of the districts with D.A.R.E.® reported that a single agency administered the D.A.R.E.® program, while 16.3% reported that two agencies and 2.3% reported that three or more agencies administered the program (Exhibit 5.3). Almost 34% of the school districts with D.A.R.E.® reported that the county sheriff's department alone administered the program, and about 34% reported city/town police departments administered it.

We next asked coordinators to report whether law enforcement or education was responsible for various activities. Coordinators with D.A.R.E.® most frequently reported that law enforcement agencies were responsible for selecting D.A.R.E.® officers and determining classroom activities (Exhibit 5.4). They reported that responsibility for selecting schools to receive D.A.R.E.®, selecting classrooms to receive D.A.R.E.®, and assigning extracurricular D.A.R.E.® activities were performed by education.

Participation of Teachers and Community. NIJ's solicitation also requested an examination of the extent of involvement of classroom teachers. About 84% of the coordinators reported that classroom teachers were actively involved in the program. We also asked coordinators about classroom teachers' level of participation during D.A.R.E.® lessons. About 21% reported a great deal of participation, 46% reported some participation, 28% reported little participation, and 5% reported no participation by the classroom teachers.

Exhibit 5.2 Use of D.A.R.E.®, by Grade



Note: Based on responses of coordinators in school districts with D.A.R.E.® (N=222).

Exhibit 5.3 Agencies Administering the D.A.R.E.® Program at the Local Level

Agencies (N=222)	%
Single Agency:	
Sheriff Department	33.5
City/Town Police Department	33.5
State Police/Highway Patrol	11.3
County Police Department	1.3
Other	1.8
Combinations of Two Agencies:	
Sheriffs Department & City/ Town Police Department	8.6
Other Combinations of Two Agencies	7.7
Combinations of Three or More Agencies	2.3
Total	100.0

Exhibit 5.4 Agencies with Primary Responsibility for Coordination of D.A.R.E.® Activities (%)

	Officer Selection	School Selection	Classroom Selection	Classroom Activities	Extra-curricular Activities
Law Enforcement	93.6	28.1	19.6	66.8	37.9
Education	6.4	71.9	80.4	33.2	62.1
Total	100.0	100.0	100.0	100.0	100.0

To determine the extent to which teachers reinforce the D.A.R.E.® lessons, we asked coordinators about D.A.R.E.®-related activities performed by classroom teachers. Most of the school district drug prevention coordinators (89%) reported that teachers remain in the classroom during D.A.R.E.® lessons. About 72% reported that classroom teachers integrate the D.A.R.E.® message into other activities, 39% said that teachers collect D.A.R.E.® homework, and 15% reported that teachers assign D.A.R.E.® homework.

The NIJ solicitation also requested that we examine the extent to which members of community groups (e.g., church or youth groups) participate in the D.A.R.E.® program. Indeed, recent research suggests that linking school-based interventions with the larger community strengthens their effectiveness (Pentz et al., 1989; Perry & Tobler, 1992).

Therefore, we asked the prevention coordinators to specify members of the community who were actively involved in D.A.R.E.® About 51% of the coordinators said that parents were actively involved, 22% indicated that civic groups were so involved, 13% said that youth groups were so involved, and 5% said that church groups were so involved.

Integration and Coordination. Another objective of this study was to examine the extent of D.A.R.E.®'s integration and coordination with other school-based drug prevention efforts. To address this issue, we first asked coordinators to indicate the level at which D.A.R.E.® was integrated with other AOD programs. About 63% of the prevention coordinators reported D.A.R.E.® was very well integrated, 31% reported it was well integrated, and 7% reported it was poorly integrated. To determine whether D.A.R.E.® was better integrated in some types of school districts than in others, we examined the differences in the percentages of coordinators reporting that D.A.R.E.® was very well integrated by minority status, SES, urbanicity, and district size. No statistically significant differences were found. D.A.R.E.® was equally well integrated with other AOD programs across different types of school districts.

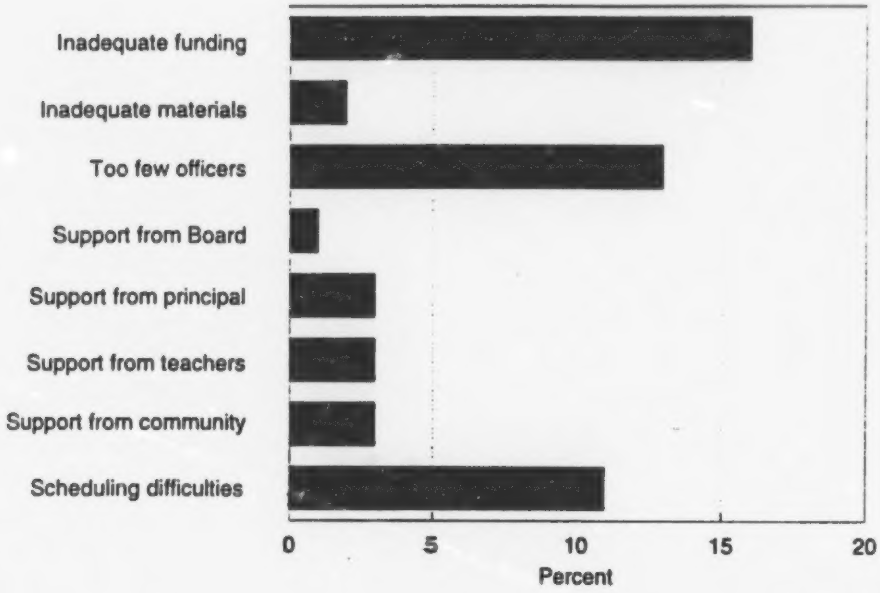
One type of mechanism for coordinating the D.A.R.E.® responsibilities of law enforcement with those of education agencies are written agreements that solidify commitment, define roles and duties, and establish sound working relationships. We asked coordinators about the existence of such agreements and found that approximately 44% of the coordinators reported that their district had a written agreement. We asked those coordinators with written agreements about the contents of these agreements. The following components of the agreements were mentioned by the accompanying number of coordinators:

- the responsibilities of all parties (23 coordinators);
- time (21 coordinators);
- funding/fees (20 coordinators);
- scheduling (15 coordinators);
- curricula (10 coordinators);
- schools to be offered in (9 coordinators);
- grades used in (6 coordinators);
- general use of D.A.R.E.® (6 coordinators);
- length of program (5 coordinators);
- school policies (4 coordinators);
- sequence of lessons (3 coordinators);
- materials (3 coordinators);
- graduation program (3 coordinators); and
- "don't know" (4 coordinators).

Problems. We asked school district drug prevention coordinators to provide information concerning problems with implementing and coordinating D.A.R.E.®, and to suggest how the effectiveness of D.A.R.E.® might be improved.

We asked coordinators to indicate whether there were any barriers to implementing D.A.R.E.® and then to specify these barriers. Only 26% of the school district drug prevention coordinators with D.A.R.E.® mentioned any barrier to implementing the program. Some 16% of the coordinators with D.A.R.E.® mentioned inadequate funding as a barrier to implementation, 13% mentioned too few officers, and 11% mentioned scheduling difficulties (Figure 5.5). The two most frequently mentioned barriers were in areas over which the school system has little control (funding and number of officers).

Exhibit 5.5 Problem Areas That Are Barriers to Implementing D.A.R.E.® in All Schools



Note: Based on responses of coordinators using D.A.R.E.® (N=222).

Next, in an open-ended question, we asked coordinators to elaborate on any problems with the coordination of D.A.R.E.® The responses of those with problems were

- lack of time (19 coordinators);
- insufficient funding/staff (12 coordinators);
- scheduling problems (9 coordinators);
- officers not good teachers (5 coordinators);
- difficulties getting program started (4 coordinators);
- inadequate officer/teacher interaction (4 coordinators);
- officer scheduling problems/absences (4 coordinators);
- other officer problems (4 coordinators); and
- lack of coordination between school and police (3 coordinators).

Finally, we asked coordinators what, if any, changes they thought would make D.A.R.E.® more effective in their district, and then to elaborate on these changes. About one-third of the coordinators mentioned that there was at least one change that they thought would make D.A.R.E.® more effective. The following responses were the changes they mentioned:

- expand to other grade levels (26 coordinators);
- increase staff/officers (11 coordinators);
- increase parental participation (7 coordinators);
- increase funding (6 coordinators);
- increase community involvement (6 coordinators);
- increase teacher training and involvement (5 coordinators);
- improve quality/dependability officers (4 coordinators);
- increase integration with other curricula (4 coordinators);
- increase time spent on D.A.R.E.® (3 coordinators);
- decrease time spent on D.A.R.E.® (3 coordinators);
- increase publicity (2 coordinators);
- adapt curriculum to grade level (2 coordinators);
- change curricula (2 coordinators);
- teach officers to be teachers (2 coordinators);
- increase refresher training for officers (2 coordinators);
- include D.A.R.E.® as part of student assistance program (1 coordinator);
- increase D.A.R.E.®'s availability in rural/isolated areas (1 coordinator).

Future Use of D.A.R.E.® To examine whether the demand for D.A.R.E.® is going to increase or diminish over the next few years, we asked coordinators about their future plans for D.A.R.E.® Some 43% of the coordinators with D.A.R.E.® planned to expand use of D.A.R.E.® in the next 5 years, and 55% planned to maintain the current level (only 2% planned to decrease use). Of the 208 school districts without D.A.R.E.®, 38% had not considered using D.A.R.E.®, 21% planned to implement D.A.R.E.® in the future, 20% were undecided, 15% reported they definitely will not use D.A.R.E.®, and 6% had discontinued use of D.A.R.E.®

Further, to determine whether any particular type of school district was more likely to expand use of D.A.R.E.® in the next 5 years, we examined the differences in the percentages of districts planning to increase their use of D.A.R.E.® by minority status, SES, or urbanicity. No statistically significant differences were found. Plans for the expansion of D.A.R.E.® were fairly equal across different types of school districts.

National Prevalence Estimates of D.A.R.E.® and Other AOD Programs

The second objective of this survey was to develop national estimates of the prevalence of D.A.R.E.® and other AOD programs. To accomplish this objective, we asked coordinators to indicate all published drug prevention curricula used by the school district in the 1991-1992 school year. Based on previous research and discussions with school-based drug prevention curricula experts, we provided a list of 13 published curricula that we thought coordinators would mention most often. In addition, we provided ample space for open-ended responses concerning other published curricula.[3] We used this information in combination with the sample stratification variables to develop estimates by geographical area, ethnicity, SES, and urbanicity. We also asked respondents to complete a series of questions concerning grade levels and substances targeted, as well as type of teachers for each of these curricula.

Based on the number of school districts in our sample using the three most frequently mentioned curricula, we estimated the number of school districts nationwide using these curricula. These prevalence estimates and other findings concerning the three most frequently mentioned published drug prevention curricula used in the 1991-1992 school year are presented below.

Prevalence. According to our estimates, the published curricula used most often by our respondents in the 1991-1992 school year were D.A.R.E.®, Quest, and Here's Looking at You.[4] Exhibit 5.6 presents the estimated numbers and percentages of school districts nationwide using these three curricula overall and by the districts' region, urbanicity, SES, minority status, and district size. Urban/suburban school districts were significantly more likely than rural districts to use D.A.R.E.® ($p<.01$) and Here's Looking

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[3] In the open-ended responses, coordinators mentioned approximately 112 other published curricula. Most of these packages were mentioned by fewer than 10 respondents.

[4] All other curricula were mentioned by fewer than 50 coordinators; consequently, we did not calculate estimates for these programs.

Exhibit 5.6 Percentage and Estimated Number of School Districts in the Nation Using Top Three Packaged Curricula During the 1991-1992 School Year, by Minority Status, SES, and Urbanicity of the School District

	D.A.R.E.®		Quest		Here's Looking At You		
Characteristic[1]	%	N	%	N	%	N	Total[2]
Total	51.8	7619	26.7	3925	24.5	3603	14719
Minority Status							
High	57.7	2384	25.0	1036	19.1	790	4135
Low	49.1	5234	27.3	2889	26.6	2813	10584
SES							
High	53.8	5904	28.0	3078	26.7	2930	10973
Low	45.8	1715	22.6	847	18.0	673	3746
Urbanicity							
Urban	60.5	3480	23.6	1358	30.1	1730	5754
Rural	46.2	4139	28.6	2567	20.9	1873	8965
District Size							
Small	45.7	3648	23.6	1886	22.4	1792	7987
Large	59.0	3971	30.3	2039	26.9	1811	6732
Region							
East	55.8	1760	24.2	762	46.4	1462	3150
Southeast	56.8	553	29.1	283	9.8	96	974
Midwest	59.9	2854	35.8	1705	17.4	831	4762
Southwest	37.1	1257	12.4	420	8.6	292	3384
West	48.8	1195	30.8	755	37.7	922	2448

[1] Multiple curricula could be indicated by the same respondent.

[2] The sum of the weights provides an estimate of the total number of districts in the frame. Similarly, the weight sum within a stratum estimates the stratum count. Due to sampling variability, stratum-level estimates will not coincide exactly with the corresponding stratum counts in Exhibit A.1 in Appendix A.

at You (HLY) (p<.05). Large school districts were significantly more likely than small school districts to use D.A.R.E.® (p<.01).

Grade Levels Targeted. To determine grade levels targeted by each of the three most frequently used curricula, we asked coordinators to indicate which curricula were used in the school district at each grade level. Grade levels targeted by coordinators with D.A.R.E.® were presented in Exhibit 5.2. Around 46% of the school districts with Quest targeted the program to the elementary school level, 81% to the middle/junior high school level, and 12% to the senior high school level. Almost 89% of the school districts with HLY targeted the program to the elementary school level, 55% to the middle/junior high school level, and 35% to the senior high school level. Coordinators reported that all three curricula were more likely to target elementary or middle/junior high school levels.

Substances Targeted. To determine whether the three most frequently mentioned curricula differed in substances targeted by the program, we asked the school district drug prevention coordinators to indicate which substances each of the prevention curricula targeted. We found no significant differences in substances targeted among D.A.R.E.®, Quest, and HLY (Exhibit 5.7). All three of the packages were comprehensive in targeting all substances.

Exhibit 5.7 Substances Targeted by, and Types of Instructor of, the Three Most Frequently Mentioned Alcohol and Drug Prevention Programs (%)

	D.A.R.E.® (N=222)	Quest (N=116)	Here's Looking at You (N=103)
Substances Targeted:			
Tobacco	92.7	97.1	93.7
Alcohol	99.5	100.0	97.9
Marijuana	95.8	97.1	92.6
Cocaine/crack	92.7	91.3	88.4
Other drugs	92.7	89.4	86.3
Type of Instructor:			
Teachers	22.1	92.2	94.6
School counselors	8.3	38.5	34.4
School nurses	3.9	7.8	18.3
Police officer	98.0	4.3	3.2
Mental health agency	1.5	7.8	2.1
Volunteers	3.4	5.2	6.4

Note: Multiple responses are possible, so percentages do not add to 100%.

Type of Instructor. We also asked coordinators to indicate who taught each of the prevention curricula. As expected, almost all school district drug prevention coordinators reported that police officers were responsible for teaching the D.A.R.E.® curricula. Classroom teachers were primarily responsible for teaching Quest and HLY (Exhibit 5.7). More than one-fifth of the coordinators reported that classroom teachers were also involved in teaching D.A.R.E.®

Comparison of D.A.R.E.® and Other AOD Programs

The final objective of this study was to make comparisons between D.A.R.E.® and other AOD programs on a variety of issues. Comparison data are presented in this section. Topics include funding, satisfaction with the curricula, support for the curricula, and adaptations to curricula. We asked respondents to report on other AOD curricula in general because it would have been too burdensome and time-consuming for them to answer each of the questions for every curricula in use during the 1991-1992 school year.

We first asked school district drug prevention coordinators with D.A.R.E.® (222 of the 429 respondents) to answer a set of survey items concerning their D.A.R.E.® programs only. We asked all coordinators using other (non-D.A.R.E.®) AOD programs (406 of the 429 respondents) to answer an identical set of items concerning their other AOD curricula only. The respondents using both D.A.R.E.® and other AOD programs answered both sets of items. Information gathered from these matched sets of questions allowed a direct comparison of responses about the D.A.R.E.® curricula with responses concerning other AOD curricula. Only 3% of the districts used only D.A.R.E.®; 46% used only other AOD curricula; and 49% used both D.A.R.E.® and other AOD curricula.[5]

Funding. The first comparisons we examined were comparisons of funding. We asked respondents to indicate all sources of funding for the districts' D.A.R.E.® and other AOD programs (Exhibit 5.8). The most frequently mentioned sources of funding for D.A.R.E.® were law enforcement agencies and DFSCA education funds. The most frequently mentioned sources of funding for other AOD programs were DFSCA education funds and school district funds. D.A.R.E.® programs were more likely than other AOD programs to receive funding from city/county funds, corporate donations, and individual donations.

Satisfaction with Curricula. Next, we compared satisfaction ratings for each of the curricula. We asked the school district drug prevention coordinators to rate five program components as very satisfactory, satisfactory, unsatisfactory or very unsatisfactory. The five components were curriculum, teaching, administrative requirements, student receptivity, and effects on students. None of the respondents with D.A.R.E.® rated any of the five components as very unsatisfactory. Approximately 1% of the respondents with other AOD programs rated teaching, administrative requirements, or effects on students as very unsatisfactory.

D.A.R.E.® was much more likely than other AOD programs to be viewed by the school district drug prevention coordinators as very satisfactory on each of the five components (Exhibit 5.9). Well over half of the coordinators with D.A.R.E.® rated each of the components as very satisfactory. Between 23% and 35% of the coordinators with other AOD programs rated each of the components as very satisfactory. Students' receptivity was the component with the highest percentage of coordinators rating it as very satisfactory for both D.A.R.E.® and other AOD programs.

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[5] The remaining 2% of school districts did not offer any drug prevention programming.

Exhibit 5.8 Sources of Funding for D.A.R.E.® and Other Alcohol and Drug Prevention Programs in the 1991-1992 School Year (%)

Source of Funding	D.A.R.E.® Programs (N=222)	Other AOD Programs (N=406)
DFSCA Education Funds	47.5	65.2
DFSCA Governors' Funds	7.9	13.7
Other Federal Funds	4.8	10.5
State non-DFSCA Funds	6.4	13.3
City/County Funds	12.2	8.8
District Funds	25.1	53.4
Local Educational Area Funds	3.1	6.5
Law Enforcement Agencies	51.4	6.2
Community Agencies	16.6	19.0
Corporate Donations	15.3	5.3
Individual Donations	17.2	7.5

Exhibit 5.9 Components of D.A.R.E.® and Other Alcohol and Drug Prevention Programs Rated as Very Satisfactory (%)

Component	D.A.R.E.® Program (N=222)	Other AOD Programs (N=406)
Curriculum	67.5	34.2
Teaching	69.7	29.8
Administrative Requirements	55.7	23.1
Receptivity of Students	76.5	34.6
Effects on Students	63.2	22.8

To determine whether school districts with particular characteristics were more likely to rate program components as very satisfactory than other districts, we examined ratings of each of the components by these characteristics. Among coordinators with D.A.R.E.®, those in high-percentage minority districts were significantly more likely than those in low-percentage minority districts to rate student receptivity as very satisfactory ($p<.05$) (Exhibit 5.10). Among coordinators with other AOD programs, those in urban districts were significantly more likely ($p<.05$) than those in rural districts to rate student receptivity and effects on students as very satisfactory (Exhibit 5.11). There were no significant differences in components rated as very satisfactory between D.A.R.E.® programs in low and high SES districts or between other AOD programs in low and high SES districts. Furthermore, there were no significant differences in components rated as very satisfactory between D.A.R.E.® programs in small and large districts or between other AOD programs in small and large districts.

Support for Curricula. We also asked the school district drug prevention coordinators to indicate how supportive they perceived the community, school personnel, students, parents, law enforcement, and civic groups to be of D.A.R.E.® and other AOD programs. Response options for these questions were very supportive, somewhat supportive, and not supportive. None of the respondents with D.A.R.E.® perceived students or law enforcement as unsupportive of the program (data not shown). The percentages of coordinators who perceived any of the listed individuals or agencies as unsupportive were very small for both D.A.R.E.® and other AOD programs.

Exhibit 5.10 Components of D.A.R.E.® and Other Alcohol and Drug Prevention Programs Rated as Very Satisfactory, by Minority Status of School District (%)

	D.A.R.E.® Program		Other AOD Program	
Component	High Percentage Minority (N=69)	Low Percentage Minority (N=154)	High Percentage Minority (N=109)	Low Percentage Minority (N=297)
Curriculum	74.0	64.4	35.7	33.7
Teaching	70.7	69.2	27.8	30.6
Administrative Requirements	51.2	57.8	18.8	24.8
Receptivity of Students	84.7	72.7	35.6	34.3
Effects on Students	65.3	62.2	18.5	24.4

Exhibit 5.11 Components of D.A.R.E.® and Other Alcohol and Drug Prevention Programs Rated as Very Satisfactory, by Urbanicity of School District (%)

	D.A.R.E.® Program		Other AOD Program	
Component	Urban (N=99)	Rural (N=123)	Urban (N=156)	Rural (N=250)
Curriculum	63.9	70.5	40.2	30.3
Teaching	69.1	70.2	35.8	25.9
Administrative Requirements	50.1	60.4	26.7	20.8
Receptivity of Students	78.6	74.7	42.2	29.7
Effects on Students	59.2	66.5	28.7	19.0

School district drug prevention coordinators reported that each type of agency and individual was much more likely to be very supportive of D.A.R.E.® than of other AOD programs. Coordinators with D.A.R.E.® were most likely to report law enforcement as being very supportive of the D.A.R.E.® program, followed by students and school personnel (Exhibit 5.12). Coordinators with AOD programs other than D.A.R.E.® were most likely to report law enforcement and school personnel as being very supportive of other AOD programs.

Exhibit 5.12 Individuals, Groups, and Agencies Very Supportive of D.A.R.E.® and Other Alcohol and Drug Prevention Programs (%)

	D.A.R.E.® Program (N=222)	Other AOD Programs (N=406)
Community	73.8	46.6
School Personnel	82.8	65.1
Students	89.6	50.7
Parents	78.7	45.8
Law Enforcement	92.2	66.8
Civic Groups	61.7	46.8

To determine whether school districts with particular characteristics were more likely to be very supportive of D.A.R.E.® and other AOD programs, we examined support by each of these characteristics. Among coordinators with D.A.R.E.®, those in high SES districts were significantly more likely ($p<.05$) than those in low SES districts to perceive the community and parents as very supportive of D.A.R.E.® (Exhibit 5.13).

Exhibit 5.13 Individuals, Groups, and Agencies Very Supportive of D.A.R.E.® and Other Alcohol and Drug Prevention Programs, by SES of School District (%)

	D.A.R.E.® Program		Other AOD Program	
	High SES (N=173)	Low SES (N=49)	High SES (N=305)	Low SES (N=101)
Community	78.3	58.0	46.7	46.4
School Personnel	84.9	75.9	66.1	62.5
Students	91.4	83.6	51.9	47.1
Parents	83.4	62.9	46.8	42.7
Law Enforcement	92.8	90.2	67.3	65.2
Civic Groups	64.6	50.4	48.1	42.9

Among coordinators with D.A.R.E.®, those in large districts were significantly more likely (p<.05) than those in small districts to perceive civic groups as very supportive (Exhibit 5.14). Among coordinators with other AOD programs, those in large districts were significantly more likely than those in small districts to perceive law enforcement (p<.01) and civic groups (p<.001) as very supportive.

Exhibit 5.14 Individuals, Groups, and Agencies Very Supportive of D.A.R.E.® and Other Alcohol and Drug Prevention Programs, by Size of School District (%)

	D.A.R.E.® Program		Other AOD Program	
	Small (N=234)	Large (N=195)	Small (N=216)	Large (N=190)
Community	65.7	78.5	40.7	49.4
School personnel	80.4	85.9	64.6	65.5
Students	87.9	92.2	51.2	49.5
Parents	73.9	83.2	46.1	44.7
Law enforcement	89.7	93.6	56.9	67.4
Civic groups	43.2	61.8	38.7	39.2

There were no significant differences in support between D.A.R.E.® programs in low- and high-percentage minority districts or between other AOD programs in low- and high-percentage minority districts. Furthermore, there were no significant differences in support between D.A.R.E.® programs in urban and rural districts or between other AOD programs in urban and rural districts.

Adaptations of Curricula. Some drug prevention curricula, such as D.A.R.E.®, require instructors to strictly adhere to the curricula and established procedures.[6] Other curricula allow instructors to adapt the curricula to meet their particular needs. However, little is known about how prevention curricula are actually adapted. We asked the school district drug prevention coordinators whether D.A.R.E.® or other AOD programs were adapted in any way as a result of gang activity, drug availability, the racial/ethnic composition of the district, student or community poverty, urbanicity, or for some other reason. About 43% of the coordinators with D.A.R.E.® reported adapting D.A.R.E.® for at least one of these reasons, while about 54% of the coordinators with other AOD programs reported adapting for one of these reasons.

Exhibit 5.15 presents the percentage adapting D.A.R.E.® and other AOD curricula as a result of the above-mentioned issues. The most frequently mentioned reasons for adapting both D.A.R.E.® and other AOD programs were drug availability and student/community poverty.

Exhibit 5.15 Adaptations of D.A.R.E.® and Other Alcohol and Drug Prevention Curricula to Meet Specific Needs of District (%)

Adaptation for:	D.A.R.E.® Curricula (N=222)	Other AOD Curricula (N=406)
Gang Activity	10.6	8.7
Drug Availability	23.4	33.2
Racial/Ethnic Composition	13.3	16.1
Student/Community Poverty	16.7	23.3
Inner-City Schools	1.3	2.2
Other	9.5	11.4

Respondents with D.A.R.E.® were provided with additional space to explain ways in which the curricula were adapted. Adaptations mentioned by the coordinators included:

- targeting particular drugs prevalent in the area;
- making adaptations for the physically and mentally handicapped;
- adding more information on violence prevention;
- discussing drug abuse in the home environment;

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[6] D.A.R.E.®'s policies on adherence to the curricula are discussed in Chapter 3.

- teaching students to be more tolerant of others;
- discussing local drug arrests;
- involving high school students as role models;
- communicating with families of youth to gain familial support and ensure attendance at graduation;
- taking field trips; and
- omitting lessons.

General Drug Policies

In this final section of Chapter 5, we present information from responses to questions that were designed to examine general drug policies in the school districts. All coordinators responded to these questions regardless of whether they used D.A.R.E.® or any other drug prevention curricula.

Anti-Drug Policies. We first asked whether the school district had a written anti-drug policy. We found that 96% did have such a policy.

Student Assistance Programs. One type of drug prevention program that many schools have adopted is the student assistance program (SAP). Modeled after employee assistance programs (EAPs) in businesses, SAPs conduct such activities as screening for alcohol and drug involvement, making referrals, and developing and coordinating early intervention plans for youth with problems that could lead to substance abuse.

Almost 55% of the school district drug prevention coordinators reported that their districts had SAPs in place during the 1991-1992 school year. Of the 237 districts with SAPs, 51% targeted these programs to the elementary school level, 78% focused on the middle/junior high school level, and 81% targeted the senior high school level.

We asked the school district drug prevention coordinators using SAPs to indicate what types of individuals were trained to participate in these programs (Exhibit 5.16). Almost 89% of the coordinators mentioned that teachers had been trained, and nearly 75% mentioned that principals and guidance counselors had been trained to participate in SAPs.

We also asked the coordinators using SAPs to indicate the types of individuals who actually implemented the programs and how effective they were (Exhibit 5.17). Coordinators most frequently mentioned that teachers, principals, guidance counselors, and students implemented SAPs. However, they perceived guidance counselors, D.A.R.E.® officers, and district/school nurses as the most effective at implementing these programs. Coordinators most frequently mentioned that community professionals and community volunteers were not effective.

Exhibit 5.16 Individuals Trained to Participate in Student Assistance Programs

Individual/Agency (N=237)	%
Teachers	88.6
Principals	74.9
Guidance Counselors	74.7
District/School Nurses	49.7
Community Professionals	42.5
Students	37.3
D.A.R.E.® Officers*	36.6
Other School Staff	30.6
Community Volunteers	20.9

*Of the 237 school districts with SAPs, 138 also had D.A.R.E.®

Exhibit 5.17 Effectiveness in Implementing Student Assistance Programs (%)

Individual/Agency	N	Very Effective	Somewhat Effective	Not Effective
Teachers	236	39.0	57.6	3.4
Principals	234	46.2	49.4	4.4
Guidance Counselors	224	60.4	33.1	6.5
District/School Nurses	176	51.1	40.6	8.3
Community Professionals	195	37.7	45.0	17.3
Students	222	29.4	61.5	9.1
D.A.R.E.® Officers	138	60.2	32.6	7.2
Other School Staff	183	27.0	63.5	9.5
Community Volunteers	156	17.6	53.8	28.6

Summary

This chapter focused on the results of our nationally representative, random sample of 500 school districts. A total of 429 school district drug prevention coordinators responded to the survey. Data presented in this chapter were weighted to take into account the complex sample design.

Over half of the school districts in the United States used D.A.R.E.® in the 1991-1992 school year. Additionally, demand for the program is going to increase over the next few years; two-fifths of those with the program planned to expand its use and one-fifth of these without the program plan to begin use. The two other most frequently used packaged curricula were Quest and Here's Looking at You, both used by about one-fourth of the districts.

Only 3% of the districts used only D.A.R.E.®; 46% used only other AOD curricula; and 49% used both D.A.R.E.® and other AOD curricula. Most of the coordinators with D.A.R.E.® reported receiving funding for the program from law enforcement and/or DFSCA funds. Most of the coordinators with other AOD programs reported receiving funding for these programs from DFSCA and/or district funds. D.A.R.E.® was more likely than other AOD programs to be rated very satisfactory in terms of curriculum, teaching, administrative requirements, student receptivity, and effects on students. Furthermore, coordinators were more likely to indicate that the community, school personnel, students, parents, law enforcement, and civic groups were very supportive of D.A.R.E than of other AOD programs. Around two-fifths of the coordinators with D.A.R.E.® and over one-half the coordinators with other AOD programs reported adapting the program to meet their needs. The most common reasons for adaptation for both D.A.R.E.® and other AOD programs were drug availability and student/community poverty.

Most of the D.A.R.E.® programs were administered at the local level by a single law enforcement agency (i.e., sheriff's department or city/town police department). In most districts, coordinators reported that officer selection and classroom activities were the responsibility of the police, while school and classroom selection were the responsibility of education.

Findings from this chapter and resulting recommendations are discussed fully in Chapter 8.

CHAPTER 6
SITE VISITS

The final component of the implementation assessment consisted of site visits to school districts. We designed these visits to obtain a snapshot of the organization and operations of D.A.R.E.® and other school-based drug prevention programs. The site visits also gave us an opportunity to speak with the officers, teachers, and students directly and to see the D.A.R.E.® program in action.

For the site visits, we selected four schools in three school districts. Two of the school districts were adjacent to one another in a northern inner-city environment, with a large minority population and a substantial drug problem. The third school district was located in a rural area in the South; it also had a substantial minority population but less of a drug problem. The school in one urban school district had D.A.R.E.®, and the school in the other urban district did not have D.A.R.E.® In the rural district, one school had D.A.R.E.® and one did not.

Because the school districts and schools were limited in number and purposively, rather than randomly, selected, the information gathered from these sites is not representative of schools in general. We present data gathered from this component of the assessment to illustrate and complement findings from other components of the implementation assessment. We recognize the need to exercise caution in interpreting site visit findings and.encourage readers to use similar discretion.

For the site visit interviews and observations, we developed site visit protocols that were based on issues raised in the previous components of the implementation assessment. The protocols were designed to elicit general, open-ended, and free-flowing discussions. We used protocols instead of structured surveys because we believed the structured format would inhibit the exploration of schools' individual characteristics. Further, we expected respondents would provide us with a wealth of information that a structured format might have prevented. We often departed from the protocols to follow up any line of inquiry that appeared of potential interest. As a result, the reports from our sites are in some ways dissimilar. Copies of the protocols can be found in Appendix D.

Site visits were conducted by two teams. Each team included at least one senior investigator with considerable experience in conducting site visits. A two-person team conducted a 2-day site visit in the urban schools, and a four-person team conducted a 1-day site visit in the rural schools. Two or more site visitors jointly interviewed key individuals, and each interviewer took notes to reduce the chances of missing key information. When appropriate, we interviewed up to four individuals at the same time.

Each team conducted interviews with a variety of individuals, including

- the coordinator responsible for the development and implementation of drug prevention efforts in the school district;
- individuals teaching drug prevention curricula to students (including D.A.R.E.® officers at schools with D.A.R.E.®),
- their supervisors (if any), and
- teachers in whose classes D.A.R.E.® officers teach (at D.A.R.E.® sites).

When available, we also interviewed others involved in drug prevention program planning, delivery, or referral (e.g., representatives of community advisory or drug action groups).

In each of the two D.A.R.E.® schools, the site visit team monitored a D.A.R.E.® lesson and the officer's activities in the school outside the classroom. We also observed a drug prevention lesson in both of the schools without D.A.R.E.® We note that both of the classroom observations in the non-D.A.R.E.® schools were conducted in special education classes. The selection of classes to be monitored was based on what teacher was teaching drug prevention the day of our site visit and the discretion of the school district drug prevention coordinator.

This chapter contains two sections. In the first, we discuss drug prevention programming in the urban schools; and in the second, we describe drug prevention programming in the rural schools. Within each section, we present information about the D.A.R.E.® school, followed by information about the non-D.A.R.E.® school.

Urban Schools

Urban School with D.A.R.E.®

The school we selected received D.A.R.E.® after being on a waiting list for approximately 1 year; all 5th-grade classes and one 6th-grade class in the school received D.A.R.E.®

We interviewed three individuals involved in the D.A.R.E.® program:

- the police administrator in charge of the local D.A.R.E.® program (an officer with many years of experience who had administered D.A.R.E.® for 5 years);
- a D.A.R.E.® officer (involved with D.A.R.E.® for 5 years and currently teaching 16 classes a week);
- the school district drug prevention coordinator.

The following summarizes our discussions with these respondents.

Administration. According to the police administrator, the D.A.R.E.® program in this city follows the same procedures employed nationally. He stated that the local police, State police, and Board of Education work together to provide the D.A.R.E.® program. He further indicated that this coordination has ensured the integrity of D.A.R.E.®'s implementation, D.A.R.E.®'s consistency with drug education required by the State, and smooth integration with other drug education initiatives.

Implementation. Initial steps in the implementation of the D.A.R.E.® program, as reported by the police administrator, are as follows. The local police department conducts initial screening of candidate officers for the D.A.R.E.® program. Potential D.A.R.E.® officers are interviewed by the local police department, and then by the State police. Successfully screened candidates are sent for a 2-week training program offered by the State police. After completing the training, officers are assigned to particular schools or sets of schools by the local police department. The D.A.R.E.® officer who was interviewed indicated that he is assigned a general target area and allowed to select the schools in that area in which he wishes to teach. He indicated that he and other officers are provided with a list of schools that have requested D.A.R.E.® to guide their selections. He further reported that no more than 20% of the schools he selects can be private.

According to the police administrator, a limited attempt is made to match officer and student characteristics. For example, he stated that in the Hispanic community, the local police department attempts to provide D.A.R.E.® officers who can speak Spanish. Beyond this, however, he indicated that little matching occurs.

The police administrator said that the D.A.R.E.® program is monitored by both the State and local police departments. He reported that a staff member from the State police visits each D.A.R.E.® instructor during the year to observe and assess teaching skills and students' receptiveness to the program, as well as to solicit feedback from classroom teachers. The administrator also stated that he monitors classroom activities as part of his supervisory responsibilities.

According to the police administrator, school personnel are very supportive of the D.A.R.E.® program, in part because the program is free to the school. The schools are, thus, able to use their drug prevention resources for additional drug prevention purposes.

The police administrator indicated that some teachers get involved in the D.A.R.E.® program because of personal interest, but that most do not. The D.A.R.E.® officer reported that although State policy requires teachers to remain in the classroom during the lesson, they assist him only in disciplinary matters. The drug prevention coordinator indicated that although teachers do not participate in teaching the lessons, they have been very receptive both to the program and the officers. The coordinator noted that teachers cannot be required to allow D.A.R.E.® into their classrooms, and the fact that no teacher has refused D.A.R.E.® indicates the degree of acceptance that the program enjoys. When asked about problems between regular teachers and D.A.R.E.® officers, the police administrator reported that although there are some individuals who do not get along, it is not a system-wide problem. The D.A.R.E.® officer stated that although principals are supportive of the program, he has yet to see one in his classes, and that no other school staff participate in the program.

The police administrator indicated that parental involvement generally has taken the form of assistance from the PTA in co-sponsoring D.A.R.E.® graduation ceremonies. However, he stated that the level of parental involvement varies substantially from one school to another. The D.A.R.E.® officer reported that in his experience parents generally do not show an active interest in D.A.R.E.®

According to the police administrator, the investment of the community in the D.A.R.E.® program is limited. He further indicated that D.A.R.E.® officers have little time to seek community involvement: "The reality is that the D.A.R.E.® instructor has a full day teaching classes; there isn't time to do anything else." The D.A.R.E.® officer also reported that community groups have little participation in the program.

Funding. The police administrator reported that when the D.A.R.E.® program began in this city, much of the funding came from the Federal Government (i.e., from BJA through a grant to the State police). He reported that support received from the State police is currently limited to training and materials. Salaries of officers and supervisors are paid by the local police department, and limited contributions are provided by the community. According to the police administrator, there is real danger of D.A.R.E.® becoming a victim of budget cuts because of the current budget crisis; he indicated that implementation has already been severely restricted because of lack of resources.

Curriculum. We asked the police administrator whether the D.A.R.E.® curriculum was adapted to meet the special needs of his area. He responded, "We teach D.A.R.E.® D.A.R.E.® is D.A.R.E.® Once you decide to use a program that is administered throughout the country, then you do not tailor it." When asked about addressing the needs resulting from gang activity, he indicated that officers incorporate their own street experiences and information they received from the police academy into the D.A.R.E.® gang lessons. He reported that local gangs and their behaviors are discussed.

The police administrator stated that local D.A.R.E.® advocates believe that classroom activity should be supported by parental involvement. He, however, did not express interest in the parent curriculum at this time. The reasons he gave were that the program is still experimental and has not been evaluated, the supply of officers is already inadequate to meet the demand, and the cost of the parent program would dramatically increase overall costs (i.e., because the parent curriculum is generally offered in the evening, officers would be paid time-and-a-half). The police administrator stated that "If more money was available, this (parent curriculum) would certainly be an option the local department would look into."

Problems and Improvements. The police administrator stated, "One of our major problems is that we have so few officers and so many schools." He indicated that the department tries to "keep D.A.R.E.® moving through the schools" and to cover as many students as possible. The administrator reported that although this rotation policy maximizes the number of schools reached within the department's limited resources, it also creates problems (i.e., just about the time the school becomes accustomed to D.A.R.E.®, the program is discontinued and moved to another school). The administrator reported that many school officials are angry about this policy.

The police administrator also indicated the need for more evaluation. He stated, "Evaluation is the only way to find out what works and what doesn't. I don't think we're ever going to find that D.A.R.E.® solves the drug problem in the United States, but that it is a first step. Evaluation must be written into everything. It has taken too long for evaluations to come about." He said that he would at least like to have information on how effective the program is in suburban, rural, and inner-city areas. He asked, "If we find the program is working in a certain area, that's great, but what can we do in the other areas to enrich the program and diversify it to meet those needs?"

The D.A.R.E.® officer mentioned several problems areas. First, he indicated that although one of his schools is heavily Hispanic, it does not have D.A.R.E.® books in Spanish. Second, he stated that the program was designed for the officer to stay in contact with the school and that in his current situation, he is in and out of the school with little chance for further contact with the students. Finally, he reported the need for greater recognition of graduates of the program. "Something should be done to get the parents and principals more involved so that students feel they have really accomplished something that has meaning."

The only problem mentioned by the drug prevention coordinator was the need for a bilingual officer.

Classroom Observation. We observed a fifth-grade classroom of 25 students, composed of 6 Hispanics, 4 African Americans, and 15 Caucasians. Two of the students spoke limited English and needed translations of the D.A.R.E.® lesson.

The D.A.R.E.® instructor was a white male police officer in his forties who was dressed in regulation uniform. The officer presented himself to the class as a friend. The officer's teaching style was very straightforward and "streetwise," and he was both gruff and engaging. He was very knowledgeable about the material and taught the whole lesson without notes. The interaction between officer and students was an easy, bantering one.

The 40-minute lesson that we observed focused on the media and how advertisement can be used to persuade consumers and children to purchase and use different products. The lesson began with a short introductory lecture on the influences of advertising and the goals of the media. The officer then asked students questions about different products to show them how much they have learned from the media. The officer gave examples of different types of advertisements (e.g., "personal testimony," "bandwagon") and also used ads from magazines to illustrate his point. Most of the class period (30 minutes) was spent in interaction.

During the class, the students were rowdy but attentive. They called out answers to the officer's questions and felt free to make comments. The students treated the officer with genuine respect. The interest and interaction level in this particular lesson was high.

The classroom teacher was present during the lesson, leaving only once to go to the principal's office. The teacher sat at the back of the room grading papers; however, he had a D.A.R.E.® book and followed the lesson as it progressed. Most of the teacher's input occurred in the beginning of the class before the lesson got started. The only other time the teacher spoke was to maintain discipline in the classroom, and then he only reprimanded talkers.

Once the lesson was completed, the officer left immediately. There was no evidence of any outside contact with students.

Urban School Without D.A.R.E.®

We interviewed two individuals at the non-D.A.R.E.® school, the drug prevention coordinator for that school district and the classroom teacher who taught the drug prevention lesson that we observed. The following summarizes the discussions with these individuals.

Administration. The drug prevention coordinator reported that there is no specific drug prevention program in place. She indicated that drug prevention textbooks are used and, at times, individuals from outside the school make presentations at drug prevention assemblies. According to the coordinator, a teacher might incorporate a drug prevention lesson into a reading class or show a video. She stated, "We put together lots of little things that add up to something you might call a program, but we don't have a structured program."

Implementation. The coordinator indicated that each student at the school receives drug education information at least on a monthly basis. However, she reported that lower grades receive less and in a more loosely structured format. The teacher reported that he makes sure his students receive some drug prevention education every week. According to the coordinator, classroom teachers do not have specific times set aside for drug prevention, but rather fit it in when they can. The seventh and eighth graders do use and follow a drug prevention textbook and have regular discussions.

The coordinator indicated that teachers' support for the drug prevention program depended on which teacher you were talking about. She indicated that all teachers think that drug prevention education is important, but that some are far more committed than others to incorporating drug prevention lessons into their curriculum. The classroom teacher stated that most of his fellow teachers support the school's drug prevention efforts, but that some teachers just did not know how to talk to students about issues like drugs and gangs. He stated, "Some either don't know what to say or just don't care enough."

The coordinator reported that law enforcement personnel have been sporadically involved in the school's drug prevention activities and have attended local school council meetings and conducted in-service training with teachers about drug awareness. She noted that 2 years ago law enforcement officials came into the school to work with students targeted as high risk. She stated that "the success of that program depended upon whether or not the student accepted the officer."

When we asked the coordinator about the involvement of individuals from the community in the school's drug prevention efforts, she responded that no person from the community has been involved in implementing the school's drug prevention program. She indicated that most of the community has no idea about what the school is doing in terms of drug prevention education. She stated, "I don't think the community feels that it is their place to be involved."

Funding. According to the drug prevention coordinator, there were virtually no drug prevention activities until the school began receiving money specifically designated for drug prevention education (DFSCA) about 3 or 4 years ago. She reported that the school was currently in its third year of receiving DFSCA funds and that the amount of funding had steadily increased over those years. She noted, however, that this funding cannot be counted on from year to year, and it is difficult for the school to make long-term plans. According to the coordinator, the lack of resources prevents consistency in the school's drug prevention program.

Curriculum. The drug prevention coordinator indicated that although all drugs are covered by their drug prevention efforts, alcohol is targeted. The coordinator and the classroom teacher both reported that alcohol is the most widely abused drug among children and adults in their community. The teacher indicated that he spends a great deal of time on this issue and that he spends more time teaching students about self-esteem and resisting peer pressure than teaching specifically about drugs. The classroom teacher stated it is a mistake to spend too much time educating students about the types of drugs and their effects unless a strong foundation of self-esteem has first been created.

When we asked whether the school drug prevention program had been adapted to meet the needs of ethnic minorities, the coordinator indicated that stereotypes about who is on drugs and who is selling drugs are reflected in the materials she has purchased; that is, many of the pictures are of minorities. If anything, she felt that white suburbs would have to work more with adapting materials to fit their population. The classroom teacher indicated that he was aware of the cultural diversity in his school and addressed it on an individual basis with students and their parents. The teacher expressed frustration about the difficulty of teaching drug prevention when many of the students live in homes where the norm is to "drink heavily and abuse family members."

Problems and Improvements. The drug prevention coordinator said that in the future she would like to purchase a packaged curriculum–possibly D.A.R.E.® She indicated that she did not know very much about D.A.R.E.®, but would like information about how to get the program. One negative factor she reported having heard about D.A.R.E.® is that there is a long waiting list for the program. She stated, "When you first called and asked if we had D.A.R.E.®, I got excited and thought that someone was going to give us D.A.R.E.®; I don't really know what D.A.R.E.® is, but I assume that because it is in other schools, it is good."

The drug prevention coordinator also indicated that she would like to increase the amount and consistency of delivery of the drug prevention education program, and to bring greater structure to. The coordinator and the classroom teacher both reported that they want to have the drug prevention program administered by one person who would come in and take responsibility for the program.

Classroom Observation. We observed a special education class of 22 students. It was a remedial class comprising 14 Hispanics, 6 African Americans, and 2 Caucasians. There were 12 girls and 10 boys.

The teacher was a white man in his forties, dressed in a suit and tie. He encouraged the students and drew on their strengths. He often called on students who would not otherwise volunteer answers and helped them formulate answers. When an answer was not exactly correct, he encouraged the student to think further about the question asked. The teacher carefully and adequately answered students' questions.

The topic of the observed lesson concerned the functioning of the lung and heart. This was a lesson designed to provide students with background information about the human body, before the impact of drugs on the body's major organs were discussed. The teacher followed the textbook closely. Because the students were slow learners, he altered the lesson slightly by asking the students to read sections aloud and then immediately asking questions about the section just covered. Most students appeared interested in the lesson. They followed along in the textbook and answered questions with sincerity. A few students consistently put their hands up to answer questions, but most were quiet. There were no discipline problems during the class. After class, we asked the teacher whether he ever used group discussions. He reported that this group of students was too remedial to use a discussion format.

Rural Schools

Rural School with D.A.R.E.®

The D.A.R.E.® program in the rural district employed four D.A.R.E.® officers. We interviewed five individuals, including:

- the police administrator in charge of the D.A.R.E.® program,
- a D.A.R.E.® officer,
- the school district drug prevention coordinator,
- the school guidance counselor, and
- the teacher in whose class the D.A.R.E.® officer taught.

The following summarizes our discussions with these respondents.

Administration. The police administrator indicated that the D.A.R.E.® program was administered by the city police department. He reported that this was the first semester that D.A.R.E.® had been offered in this particular school. He stated that the agreement between the school and police department is informal.

Implementation. The police administrator reported that the initial steps in implementing the D.A.R.E.® program include selection of a D.A.R.E.® officer by the local police department, approval of the officer by the State police, and training for the officer at a D.A.R.E.® training course.

The officer reported that there are no problems coordinating D.A.R.E.® activities. He stated that there is "eagerness from all sides to make the program work." According to the officer, some classroom teachers participate in the lesson, but most do not. He further indicated that much of the time students are just as receptive without the teacher present.

The D.A.R.E.® officer indicated that parents are becoming more involved in the program. He stated that they are very interested and supportive of D.A.R.E.®, and that his attendance at nonclassroom school functions, such as Friday night dances, has greatly improved his relationships with parents. He reported that he hopes to receive training on the D.A.R.E.® parent curriculum as soon as possible.

According to the officer and the police administrator, there was little community involvement. They attributed this to the program being new and hoped that there would be more community involvement in the coming semesters. However, the coordinator did report that D.A.R.E.® is well received by the "educated" community. He indicated that churches in the community have not been particularly receptive and simply do not want to get involved. The coordinator and the guidance counselor saw the lack of involvement by churches as a loss to the program.

According to the school counselor, students' attitudes toward police had changed considerably since the D.A.R.E.® lessons began. She stated that "students now see the officer as a friend instead of someone to avoid."

Funding. The police administrator reported that the police department funds the salary of the D.A.R.E.® officer, while the school pays any costs for the curriculum (i.e., books, materials). The school district coordinator indicated that the school did not have the funds to purchase D.A.R.E.® T-shirts and related paraphernalia. He further stated that the district is seeking a State grant for additional supplies.

Curriculum. The guidance counselor reported that D.A.R.E.® classes are a "wonderful way of teaching students to say no" and that the self-esteem modules are particularly valuable and effective. According to the district coordinator, D.A.R.E.® complements all their other drug prevention programs, but that unfortunately there was little coordination between different curricula.

The D.A.R.E.® officer reported that he does not target the curriculum to any particular substances and does not adapt the curriculum to specific ethnic needs. He indicated that he does teach the gang lesson (as do most D.A.R.E.® officers in the State), even though in this community there is little gang activity.

Problems and Improvements. The guidance counselor indicated that she would like the school to provide D.A.R.E.® in all classrooms in grades 5 through 7. The guidance counselor and the classroom teacher indicated the need for the school to offer

D.A.R.E.® or some other drug prevention education at earlier grade levels. According to the counselor, "Trying to teach drug prevention education in high school is futile."

The classroom teacher indicated that D.A.R.E.® and other programs need to focus more on at-risk children. She indicated that there are some 15- and 16-year-olds still in the 6th grade. She reported that these students usually have poor attendance records, are poorly motivated, and are frequently in trouble. She stated that current prevention programs, including D.A.R.E.®, are not adequately meeting the needs of these students.

The district coordinator indicated that one problem has been the lack of ongoing evaluations of D.A.R.E.®

Classroom Observation. We observed a fifth-grade class of 22 students, 12 boys and 10 girls. Twenty students were African American, and two students were Caucasian.

The D.A.R.E.® officer was a white man in his thirties who was dressed in regulation uniform. The officer presented himself as a "big brother," someone whom the students could seek out if they needed guidance or assistance. The officer brought the D.A.R.E.® mascot--the D.A.R.E.® bear--with him to class.

The lesson that we observed focused on alternatives to drug use. The officer discussed how athletics could be used as an alternative to drug involvement. He used examples of well-known, drug-free athletes. The officer encouraged students to ask questions. He also used a "D.A.R.E.® question box." In the previous week, students had been asked to write questions for the officer and place them in the box. During the lesson, he drew a question from the box and answered that question. For the remainder of the lesson, the officer took the students outside to play games to illustrate alternatives to drug use. He also involved the school's gym teacher in supervising the games.

During the class, students were interested and inquisitive. They seemed to feel free to ask the officer questions. There were no disciplinary problems. The classroom teacher remained present during most of the lesson, sitting at the back of the room and grading papers.

The officer seemed to spend a great deal of time in the school. After the lesson was over, he talked to students in the hallway. Indeed, almost all students seemed to know him. When an emergency occurred (a student fell and broke his arm) and the principal was not present, the staff sought the officer's assistance. This was not the first such occurrence, and we learned that the school staff relied frequently upon the D.A.R.E.® officer to act as a sort of assistant principal. Clearly, he was viewed as an integral--and important--part of the school staff.

Rural School Without D.A.R.E.®

We interviewed four individuals at the non-D.A.R.E.® school, including the school district drug prevention coordinator (who was the same for both rural schools), the supervisor of health services, and two members of a local advisory board for substance abuse. The following summarizes discussions with these individuals.

Administration. Coordination of the drug prevention efforts in the observed non-D.A.R.E.® school and other such schools in the community rests with the school district drug prevention coordinator. He indicated that there are a variety of programs currently available to schools but that implementation and coordination are sporadic.

Implementation. According to the coordinator, parents in this school are becoming more aware of the drug problem and are beginning to ask what they can do to get involved. He stated that many parents are realizing that they cannot "send their kids to school to get fixed," and so are starting to take responsibility for their children's problems. He also indicated that school personnel are becoming more involved.

Funding. According to the district coordinator, the school receives most of its drug prevention funds from DFSCA. He also indicated funds were provided by the school board and a local university, as well as the Indian Education Act. These latter resources, however, could only be spent on programs delivered to Native American children.

Curriculum. According to the coordinator, a variety of curricula are available to teachers at this school, but not all teachers use the same curriculum, and some do not provide drug prevention education at all. The coordinator reported that Here's Looking at You 2000 is one package available to teachers in this school. However, he indicated that only about half the teachers had been trained to teach this program.

The advisory board members informed us of a community drug abuse treatment program currently in use in this and other area schools that follows the "12-step" model. This program offers intervention, education, and prevention to youth who have been suspended for substance use, as well as to their families. One board member stated that suspended youth must attend this program before returning to school.

The coordinator indicated that the SAP is just now being implemented in this school.

The health supervisor reported that the school also sponsors Red Ribbon week, a program sponsored by the National Federation of Parents that invites youth and community members to pledge their support for drug-free lives by displaying red ribbons.

Problems and Improvements. All individuals interviewed indicated the need for greater coordination between the different types of drug prevention programs, as well as assessments of drug prevention efforts. The coordinator reported that he would like to have someone responsible for the delivery of drug prevention programs in the school and someone responsible for evaluation. He said that "a lot of people are working very hard, but have little idea of whether or not their efforts are successful."

The coordinator indicated that time is also a major problem in the delivery of drug prevention education. He stated that preparing students for end of the year testing takes up most of the classroom teachers' time and allows them little time to teach drug prevention.

Classroom Observation. We observed a 5th grade class of three girls and seven boys. This was a class for exceptional children that included students with emotional and behavioral problems. Five of the students were Caucasian, three were African-American, and two were Native American.

The instructor was an African-American woman in her twenties. She used an approachable and upbeat teaching style. She was careful to include all of the students in the lesson.

Because this was a class for exceptional children, the teacher tailored the drug lesson to the students. The teacher drew her lesson from health textbooks used in regular classes. The lesson lasted approximately 1 hour. The teacher indicated that the length of the class and how much time she spends on the drug lesson generally depends both on her assessment of how much of the lesson the students are absorbing and their interest level. She indicated that drug prevention lessons are usually taught two or three times a week.

The observed lesson was about learning how to make healthy choices. Topics included why people smoke and use drugs, how magazine advertisements promote smoking and drinking, and the differences between drugs that are helpful and harmful. The teacher covered a wide range of concepts, including how self-esteem and peer pressure contribute to drug use, the importance of reading warning labels on medications, and techniques advertisements use to glamorize drug use. The class format was primarily question and answer, and the teacher encouraged each student to participate. The teacher used a variety of visual aids, including charts, examples of magazine ads, and a collection of common medications that can be inappropriately used.

For the most part, the students were very attentive. Most were eager to be called on and to participate in the class. The teacher encouraged participation by all the students.

Summary

This chapter focused on site visits to four schools in three school districts. Two of the schools were located in one rural school district; one of these schools had D.A.R.E.® and one did not. The other two schools were located in adjacent school districts in an urban area; again, one school had D.A.R.E.® and one did not.

In both of the schools with D.A.R.E.®, limited participation of teachers, parents, and the community were reported. Both schools also mentioned having inadequate resources for the program. Neither school reported adapting the curriculum for any reason. In both schools, the need for ongoing, long-term evaluations was stressed.

Neither of the non-D.A.R.E.® schools had a specific drug prevention program. Both reported that implementation and coordination was sporadic. Both schools reported wanting one person who would be responsible for administering the drug prevention program in the school.

SECTION III

OUTCOME ASSESSMENT

CHAPTER 7
D.A.R.E.® OUTCOME ASSESSMENT

Project D.A.R.E.® is a drug use prevention program with curricula targeted at elementary, middle, and senior high school students. The original core curriculum used in elementary schools is the subject of this review (a revised core curriculum will be implemented in September 1994). The junior and senior high school curricula are not included in the review because they are more recent, not as prevalent, and generally have not been evaluated. Future evaluation efforts should focus on these curricula, as well as on the cumulative effects of the comprehensive program.

The purpose of the current review is to assess the short-term effectiveness of the original D.A.R.E.® core curriculum by using meta-analytic techniques to synthesize the evaluation findings of several studies. We searched for all D.A.R.E.® evaluations, both published and unpublished, conducted over the past 10 years (i.e., since D.A.R.E.® originated) and selected for further review those studies that met specified methodological criteria. To establish a comparable measure of effectiveness across studies, we calculated effect sizes for each study. In addition, to put D.A.R.E.® in the context of other school-based drug use prevention programs, we compared the average magnitude of the effect sizes for D.A.R.E.® with those of other programs that target youth of similar age.

This chapter covers six topics. First, we briefly summarize the original D.A.R.E.® core curriculum. Second, we provide some general background on meta-analysis and describe the methodological criteria used to select evaluations for the review. Third, we identify the eight studies that met the criteria and provide an overall description of these studies. Fourth, we examine the reported immediate effects of D.A.R.E.®, based on these studies. Fifth, we compare the D.A.R.E.® effect sizes averaged across studies with the average effect sizes of other drug use prevention programs. Finally, we discuss several methodological considerations related to the evaluations included in our review that are important to interpretation of the results. Further discussion of the results is included in Chapter 8 of this report.

The D.A.R.E.® Core Curriculum

The D.A.R.E.® core curriculum is offered to pupils in the last year of elementary school, typically fifth or sixth grade. The 17 lessons in the core curriculum are usually offered once a week for 45 to 60 minutes. The lessons focus on teaching pupils the skills they need in order to recognize and resist social pressures to use drugs. In addition to information about drugs, lessons emphasize decisionmaking skills, building self-esteem, and choosing healthy alternatives to drug use. Officers use a variety of teaching methods, including lectures, group discussions, question-and-answer sessions, audiovisual materials, workbook exercises, and role-plays.

Several aspects of the D.A.R.E.® core curriculum suggest that it should be successful as a drug use prevention curriculum. First, the curriculum includes elements of prevention strategies generally thought to be effective, such as emphasis on peer resistance and social competence skills (Botvin, 1990; Hansen, 1992). Interactive programs have shown more promise than those using more traditional teaching methods (Tobler, 1986, in press, 1994), and at least some of D.A.R.E.®'s teaching strategies encourage role-playing and interactions among pupils. Also, the core curriculum is offered to children at the age when they are believed to be most receptive to antidrug use messages, which is just before experimentation with drugs begins (BJA, 1988; Oetting & Bauvais, 1990). In addition, the program targets cigarettes, alcohol, and marijuana--the "gateway drugs" that children tend to experiment with first (Ellickson, Hays, & Bell, 1992; Kandel, 1975). Finally, the structured nature of the curriculum and extensive training of the officers helps ensure that the program is implemented as designed (BJA, 1988).

Meta-Analysis Background and Study Selection Criteria

Meta-analysis is a methodology for integrating the research findings of a body of studies (Bangert-Drowns, 1986; Cook et al., 1993). The purpose of meta-analysis is to discover whether some pattern of results is discernible in a set of studies pertaining to the same research question (Bangert-Drowns, 1986; Glass, McGaw, & Smith, 1981; Rosenthal, 1991). Meta-analysis differs from a traditional narrative review of studies by providing statistical techniques for summarizing the research findings from the studies. By quantifying outcomes across studies and making them comparable with each other, meta-analysis provides an objective rather than subjective basis for drawing conclusions about patterns of study results.

Three basic steps are commonly followed in conducting meta-analyses (Bangert-Drowns, 1986). First, all relevant studies are collected, and some studies are selected for inclusion according to a set of a priori defined methodological criteria. Second, effect sizes are calculated for each study. Effect sizes represent the statistical outcomes of each study transformed to a common metric. This transformation allows comparisons across different scales of different outcome measures. Third, effect sizes for the set of studies are averaged. In addition, explanations for variability in effect sizes across studies usually are tested. We followed these three steps in conducting our assessment of the D.A.R.E.® core curriculum; we did not, however, examine possible causes of differences in outcomes across the D.A.R.E.® studies (e.g., differences in D.A.R.E.® outcomes by the racial/ethnic composition of the study samples). The relatively small number of D.A.R.E.® studies precluded this type of analysis.

In selecting studies, our review focused on student-based, quantitative evaluations of D.A.R.E.® that measured program effects on drug use behavior and/or other outcomes targeted by the D.A.R.E.® core curriculum, such as attitudes about drug use. Evaluations that reported only subjective assessments or satisfaction ratings are outside the scope of this review. We also did not consider the results of parent, teacher, administrator, or D.A.R.E.® officer surveys, which sometimes were conducted as part of the total evaluation effort. (For information about the opinions of school district drug prevention coordinators concerning D.A.R.E.®, see Chapter 5.) It should be noted that there are many possible D.A.R.E.® outcomes of importance other than the ones we examined in this meta-analysis, such as improved school and police relations and greater trust in law enforcement among youth.

We attempted to locate all the quantitative evaluations of the original D.A.R.E.® core curriculum conducted to date through a survey of D.A.R.E.®'s five RTCs, telephone interviews with individuals known to be involved with D.A.R.E.®, and computerized searches of the published and unpublished literature using several data bases. The computerized data bases included ERIC, PsychINFO, and Dissertation Abstracts Online.

Through the combined sources, we identified 18 quantitative D.A.R.E.® evaluations conducted in 12 States and one Canadian province. The location and primary reference for each evaluation are shown in Exhibit 7.1. Several of the evaluations were reported in multiple reports or papers; we generally used the final, most complete report or the published paper for our review.

From the 18 studies, we selected studies to include in our meta-analysis that met the following criteria: (a) use of a control or comparison group; (b) pretest-posttest design or posttest only with random assignment; and (c) use of reliably operationalized quantitative outcome measures. Quasi-experimental studies were excluded if they did not control for preexisting differences on measured outcomes with either change scores or covariance adjusted means (Tobler, in press, 1994). In addition, to ensure the comparability of results, we used only results based on immediate posttest. There were an insufficient number of long-term evaluation studies to adequately assess the longer-term effects of the core curriculum.

We selected these criteria because they help to ensure confidence in the study results by removing a number of alternative explanations, other than true D.A.R.E.® impact, that could account for outcomes observed. For example, the first criterion, a comparison group made up of schools and/or subjects that did not receive the curriculum, makes it possible to determine whether changes in the D.A.R.E.® youth are unique to them or are shared by other youth. If youth receiving and not receiving D.A.R.E.® change on some outcome of interest, then the cause is due to some other factor, such as maturation, rather than to D.A.R.E.® Pretest measures (the second criterion) are needed

Exhibit 7.1 D.A.R.E.® Evaluation Studies (N=18)

Location	References
British Columbia* (BC)	Walker, 1990
California-A	Becker, Agopian, & Yeh, 1992
California-B	DeJong, 1987
California-C	Evaluation and Training Institute, 1990
Colorado	Dukes & Matthews, 1991
Hawaii* (HI)	Manos, Kameoka, & Tanji, 1986
Illinois-A	Kethineni, Leamy, & Guyon, 1991
Illinois-B	Earle, Garner, & Phillips, 1987
Illinois-C* (IL)	Ennett et al., 1994; Ringwalt, Curtin, & Rosenbaum, 1990; Rosenbaum et al., 1991, 1992
Indiana	Aniskiewicz & Wysong, 1987, 1990
Kentucky-A* (KY-A)	Clayton et al., 1991a, 1991b
Kentucky-B* (KY-B)	Faine & Bohlander, 1988, 1989
Minnesota* (MN)	McCormick & McCormick, 1992
North Carolina* (NC)	Ringwalt, Ennett, & Holt, 1991
Pennsylvania	Anonymous, 1987
South Carolina* (SC)	Harmon, 1993
Tennessee	Faine & Bohlander, 1989
Virginia	McDonald, Towberman, & Hague, 1990, 1991

*Study selected for further review (with State abbreviation).

for testing the assumption that the D.A.R.E.® and comparison groups are equivalent at the outset. In the absence of random assignment, this assumption must be tested. In addition, pretest measures provide a benchmark for evaluating changes in outcome measures after program implementation. Reliably operationalized measures of the outcomes of interest (the third criterion) are important for ensuring that the constructs intended to be measured are the ones actually measured. For example, for assessing outcomes related to knowledge, attitudes, and skills, we considered multiple item scales to be more reliable than single-item measures.

We also examined a number of other methodological features, such as the correspondence between the unit of assignment and unit of analysis, whether a panel design was used, whether schools in the intervention and comparison conditions were matched, and whether attrition rates were reported and examined. Although these factors were considered in assessing the overall methodological rigor of the studies, no evaluations were eliminated on the basis of these criteria.

Studies Selected

Eight of the original 18 evaluation studies met the criteria for inclusion in the review. One additional study met the methodological criteria but did not administer the first posttest until 1 year after D.A.R.E.® implementation and so could not be included in the analysis of immediate effects (Nyre & Rose, 1987; Nyre, Rose, & Bolus, 1987). The eight evaluations are indicated by an asterisk (*) in Exhibit 7.1. Characteristics of the studies are summarized in Exhibit 7.2. A more complete description of each study is provided in Appendix B.

Each of the evaluations represented a State or local (e.g., city, school district) effort using either the entire population of schools in a locale or a convenience sample. The number of student subjects in all studies was large; each study included at least 10 schools and approximately 500 to 2000 students in the combined D.A.R.E.® and control groups. Demographic information about each sample, including gender, race/ethnicity, SES, and metropolitan status, was not consistently given across studies. Based on the information available, the samples were about equally divided between girls and boys; included white, black/African American, Hispanic, and Asian-American youth, with whites usually in the majority; and represented urban, suburban, and rural areas. Information was generally not given on the SES of the sample.

Assignment of D.A.R.E.® to intervention and control groups was by school for all eight studies. In one study, D.A.R.E.® was also assigned by classroom in certain schools (Manos et al., 1986). Because the control group classrooms in that study were potentially contaminated by their close proximity to D.A.R.E.® classrooms, these control classrooms were eliminated; only control schools with no D.A.R.E.® classes were included. Two of the studies used a true experimental design in which schools were randomly assigned to D.A.R.E.® or control conditions; a third study used random assignment for two-thirds of the schools. The remaining five evaluations used a nonequivalent control group quasi-experimental design. For these, assignment was based on some other criterion; if the criterion was stated, usually it was the administrative convenience of either the school district or law enforcement agency.

A fundamental consideration in reviewing the studies was the equivalence of the D.A.R.E.® and control groups before the intervention. Because there were relatively few sampling units across studies (ranging from 11 to 63 schools, with under 40 schools in all except one study), it is unlikely that equivalence between groups was obtained without prior matching or blocking of schools, even with randomization. Only half the studies matched comparison schools on selected demographic characteristics. The majority of studies (75%), however, assessed the equivalency of the comparison groups at pretest and made adjustments for pretest differences on demographic characteristics. All studies adjusted for pretest differences on outcome measures.

Exhibit 7.2 Sample and Methodological Characteristics of the D.A.R.E.® Evaluations (N = 8)

Study	School N	Subject N	Research Design	Matching	Unit of Analysis	Pretest Equivalency[1]	Scale Reliabilities	Attrition
British Columbia	11	D=287 C=176	Quasi, x-sectional	Yes	Individual	Yes	No	n.a.
Hawaii	26	D=1574 C=435	Quasi, panel	No	Individual	No	No	No
Illinois-C	36	D=715 C=608	Exp./quasi, panel	Yes	School-based	Yes	Yes	Yes[2]
Kentucky-A	31	D=1438 C=487	Exp., panel	No	Individual	Yes	Yes	Yes[2]
Kentucky-B	16	D=451 C=332	Quasi, panel	Yes	Individual	Yes	Yes	No
Minnesota	63	D=453 C=490	Quasi, panel	No	Individual	Yes	Yes	Yes[3]
North Carolina	20	D=685 C=585	Exp., panel	No	School-based	Yes	Yes	Yes[2]
South Carolina	11	D=295 C=307,	Quasi, panel	Yes	Individual	Yes	Yes	Yes[3]

[1] Pretest equivalency on demographic variables assessed and controlled if necessary.

[2] Attrition rates reported and differential attrition across experimental conditions analyzed.

[3] Attrition rates reported only.

All but one of the studies used a panel design that matched subjects from pretest to posttest using a unique identification code.

Outcome measures used in the studies were based on responses to self-administered questionnaires. Seven of the eight studies used measures that were standardized scales or derived from existing measures; six studies reported scale reliabilities (usually Cronbach's alpha) that were generally high. Validity information, however, was rarely reported, and none of the studies used either a biochemical indicator or "bogus pipeline" technique to validate self-reports of drug use. Informing youth that their self-reports of drug use will be verified by a biological specimen (e.g., saliva) or a purported lie detector (i.e., bogus pipeline) is believed to enhance the validity of their responses (Bauman & Dent, 1982).

As is unfortunately typical of school-based evaluation studies, most (75%) of the D.A.R.E.® evaluations did not use a data analysis strategy appropriate to the unit of assignment. Because schools, not students, were assigned to D.A.R.E.® and control conditions, it would have been appropriate to analyze the data by schools with subjects' data aggregated within each school or to use an analysis strategy that accounts for clustered data (Moskowitz, 1993; Murray & Hannan, 1990). Six of the studies ignored schools altogether and analyzed individual subjects' data, thereby violating the statistical assumption of independence of observations. The result of ignoring schools as the unit of analysis is a positive bias toward finding statistically significant program effects (Murray & Hannan, 1990).

Five of the studies reported attrition rates, which generally were small. None of the three studies that analyzed attrition rates found that attrition differed significantly across experimental and control conditions. In addition, subjects absent from the posttest were not more likely to be drug users or at risk for drug use. Although attrition usually is greater among drug users (Biglan & Ary, 1985), given the young age of the sample, when dropping out of school is unlikely and drug use prevalence is low, these results are not surprising.

D.A.R.E.® Effect Sizes

To assess the impact of the original D.A.R.E.® core curriculum on youth drug use, as well as on other outcomes targeted by the curriculum, we calculated effect sizes. An effect size (ES) is defined as the difference between the mean for the intervention group (Mean_I) and the mean for the control group (Mean_C), standardized by dividing by the pooled standard deviation (SD): [$ES = (\text{Mean}_I - \text{Mean}_C)/ SD$] (Hedges & Olkin, 1985; Perry & Tobler, 1992; Rosenthal, 1991). If means and standard deviations are not available, effect sizes can be calculated using formulae developed to convert other test statistics (such as, t or F), as well as percentages, to effect sizes (Perry & Tobler, 1992).

Effect sizes are expressed as standard deviation units and may be positive or negative. A positive effect size indicates an effect in the desired direction as a result of the intervention. An effect size of 1, for example, indicates that the intervention group performed one standard deviation unit better than the control group on some outcome of interest. Although there are no clear conventions for defining "small," "medium," and "large" effect sizes in the context of drug use prevention programs, review of several meta-analyses of adolescent drug use prevention programs (Bangert-Drowns, 1988; Bruvold, 1993; Bruvold & Rundall, 1988; Tobler, 1986, in press, 1992) suggests that effect sizes below .15 reflect a small effect; effect sizes between .15 and .30 indicate a modest effect; and effect sizes above .30 reflect stronger program effects.

For each of the eight D.A.R.E.® studies, we calculated effect sizes to quantify the magnitude of D.A.R.E.®'s effectiveness with respect to six outcomes that reflect the aims of the D.A.R.E.® curriculum. The six outcomes were knowledge about drugs, attitudes about drug use, social skills, self-esteem, attitude toward police, and self-reported drug use. We calculated effect sizes using the procedure appropriate for the summary statistics reported. In all cases, we used statistics reflecting covariance-adjusted means, with pretest values as covariates, rather than unadjusted means so that any differences between the comparison groups prior to the intervention would not be reflected in the effect sizes (Tobler, in press, 1994). Where possible, we used statistics that also were adjusted for sample demographic characteristics (six of eight studies).

Some studies did not include all six outcomes of interest, and some outcomes were measured by more than one indicator. When multiple indicators were used, such as two measures of social skills, we calculated separate effect sizes and then averaged them. This procedure yielded one effect size per study for each type of measured outcome. In the one study that reported only that a measured outcome was not statistically significant and did not provide any further statistics, we assigned a value of zero to that effect size. To calculate effect sizes for reported drug use, we considered only alcohol, tobacco, and marijuana use; we averaged effect sizes across these substances. In a supplementary analysis, we also considered use of these substances separately. Use of other drugs, such as cocaine, was measured by some studies, but the prevalence of use was too small to produce meaningful effects.

The unweighted effect sizes at immediate posttest for each outcome for each study are shown in Exhibit 7.3. Several of the effect sizes are .30 or higher, although most are less than .20. The largest effect sizes are for knowledge (that was only measured by three of the eight studies) and social skills. The effect sizes for self-esteem, attitudes about drug use, and attitude toward police tend to be smaller. The smallest effect sizes are for drug use, with none being greater than .11. The higher effect sizes for knowledge compared with drug use is consistent with other studies and supports the conclusion that knowledge is easier to change than behavior (Bangert-Drowns, 1988; Bruvold & Rundall, 1988; Tobler, 1986).

Exhibit 7.3 Unweighted Effect Sizes at Immediate Posttest Associated with Eight Evaluations of D.A.R.E.®

Study	Knowledge	Attitudes About Drugs	Social Skills	Self-Esteem	Attitude Toward Police	Drug Use[1]
BC	0.68	0.00	--	--	--	0.02
HI	--	0.07	0.34	--	--	--
IL-C	--	0.03	0.15	0.15	0.12	0.05
KY-A	--	0.11	0.10	0.07	--	0.00
KY-B	0.58	0.19	0.30	0.14	0.27	--
MN	0.19	0.06	0.08	-0.03	0.05	--
NC	--	0.19	0.17	0.00	--	0.11
SC	--	0.23	0.19	0.06	0.08	0.10

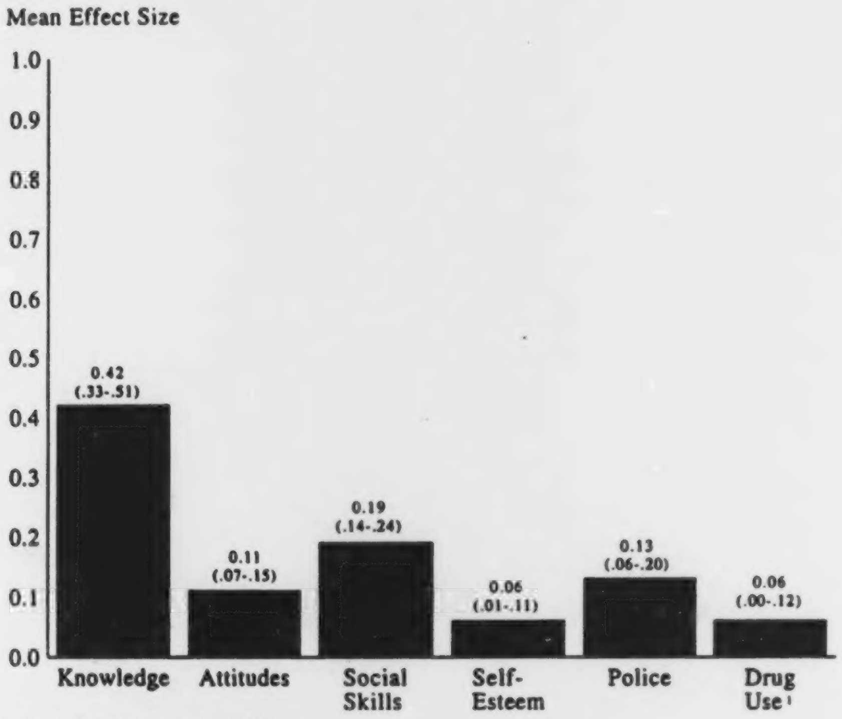
[1] Limited to alcohol, tobacco, and marijuana.

In addition to calculating one effect size for each outcome for each study, we calculated the weighted mean effect size and 95% confidence interval for each type of outcome across the eight studies. The weighted mean provides a summary measure across the eight studies that is useful for indicating D.A.R.E.®'s general effectiveness with respect to each outcome. The weighted mean provides a less biased estimate than the simple unweighted mean because estimates from larger samples are given more weight. It is computed by weighting each effect size by the inverse of its variance, which is a reflection of the sample size (Hedges & Olkin, 1985). The effect size estimates from larger studies are generally more precise than those from smaller studies (Hedges & Olkin, 1985).

The 95% confidence interval provides an upper and lower bound for the estimate; in 95% of samples drawn, the estimate would fall within these bounds. To calculate the 95% confidence interval, 1.96 multiplied by the square root of one divided by the sum of the study weights is added to or subtracted from the mean (Hedges & Olkin, 1985).

The weighted mean effect size at immediate posttest and 95% confidence interval (CI) for each outcome are depicted in Exhibit 7.4. The largest weighted mean effect size is for knowledge about drugs (0.42), followed by social skills (0.19), attitude toward police (0.13), attitudes about drug use (0.11), self-esteem (0.06), and drug use (0.06). The weighted mean effect sizes for knowledge, social skills, attitude toward police, attitudes about drug use, and self-esteem are statistically significant. The statistical significance of these D.A.R.E.® effect sizes, however, should be interpreted cautiously because the significance may be positively influenced by the failure of most studies to account for data

Exhibit 7.4 Magnitude of D.A.R.E.®'s Weighted Mean Effect Size (and 95% Confidence Interval), by Outcome Measures at Immediate Posttest



[1] Includes alcohol, tobacco, and marijuana.

clustered by school. The confidence interval for the weighted mean effect size for drug use overlaps with zero, meaning than it is not significantly different from zero.

Because averaging alcohol, tobacco, and marijuana use for the drug use effect size could obscure substantial differences among substances, we calculated D.A.R.E.®'s weighted mean effect sizes separately for alcohol, tobacco, and marijuana use. None of the individual effect sizes for any of the three substances from any study is larger than 0.15. The mean immediate effect size for alcohol use is 0.06 (95% CI: .00, .12); for tobacco use, 0.08 (95% CI: .02, .14); and for marijuana use, –0.01 (95% CI: –.09, .07). Only the mean for tobacco use is statistically significant.

The range of effect sizes, both individually by study and averaged across studies, suggests that D.A.R.E.® has been more effective at immediate posttest in influencing some outcomes than others. The core curriculum has been most effective in increasing knowledge about drug use and in enhancing social skills. Although some studies reported fairly large effect sizes for attitudes about drugs and attitude toward police, overall the studies show less D.A.R.E.® success in influencing these factors and self-esteem. Based on these eight studies, the core curriculum has been least effective at immediate posttest at influencing drug use outcomes: alcohol, tobacco, and marijuana use. The small effect sizes for drug use and attitudes about drugs and police reflect, at least in part, the low levels of drug use by this age group and their already negative attitudes about drugs and positive attitude toward police.

Comparison of D.A.R.E.®'s Effectiveness to Other Drug Use Prevention Programs for Youth

To see how D.A.R.E.® compares with other school-based drug use prevention programs, we compared the weighted mean D.A.R.E.® effect sizes with weighted mean effect sizes computed for similar programs. For comparison, we used the effect sizes reported in Tobler's recent meta-analysis of school-based drug use prevention programs (Tobler, in press, 1994). To allow the most appropriate comparisons with D.A.R.E.® effect sizes, we obtained Tobler's results for only those programs, excluding D.A.R.E.®, aimed at fifth and sixth graders. Although pupils in the comparison programs were in the fifth and sixth grade, some sixth graders were in middle school, whereas all D.A.R.E.® sixth graders were in elementary school. Like the D.A.R.E.® studies, the interventions analyzed by Tobler were implemented in geographically diverse areas. Also similar to the D.A.R.E.® studies, demographic information was not reported across all studies. The available data suggest that the studies in Tobler's review represented both white and minority populations and included urban, suburban, and rural areas with urban areas predominating. These programs are a subset of 25 from the 114 programs included in Tobler's meta-analysis. The studies from Tobler's meta-analysis are referenced in Exhibit 7.5 and listed in Appendix C.

We selected Tobler's meta-analysis for comparison because it is more similar to our review than other meta-analyses of drug use prevention programs (Bangert-Drowns, 1988; Bruvold, 1993; Bruvold & Rundall, 1988; Tobler, 1986). Tobler's meta-analysis and ours used similar processes and criteria to identify and select program evaluations for examination and included both published and unpublished studies. Like the D.A.R.E.® criteria, Tobler selected student-based quantitative evaluations that included a control or comparison group and used a pretest-posttest sign or posttest only with random assignment. In addition, Tobler reported separate weighted mean effect sizes for four categories of outcome measures that are comparable to four of our outcome measurements: knowledge, attitudes toward drugs, social skills, and drug use. The meta-analyses differed, however, in that Tobler excluded studies that did not measure drug use and that included results from later posttests. In addition, some of Tobler's programs focused on a single drug rather than on multiple drugs as in D.A.R.E.® The collective impact of these

Exhibit 7.5 Comparison Drug Use Prevention Programs (N=25)

Noninteractive Programs

Study	Location	References
1, 2	Ontario	Allison, Silver, & Dignam, in press
3	Pennsylvania	Dubois et al., 1989
4	Pacific Northwest	Gilchrist et al., 1987
5	California	Johnson et al., 1987
6	California	Moskowitz et al., 1984; Schaeffer et al., 1981
7	Michigan; Wisconsin	Sarvela, 1984; Sarvela & McClendon, 1987
8	California	Schaps et al., 1984
9	Not stated	Schinke, Gilchrist, & Snow, 1985

Interactive Programs

Study	Location	References
10, 11	Michigan	Dielman et al., 1986; Dielman et al., 1987; Dielman et al., 1989; Shope, Dielman, & Leech, 1988
12	Ontario	Flay et al., 1989; Flay et al., 1983; Flay et al., 1985
13	New England	Gersick, Grady, & Snow, 1988
14-16	California	Johnson et al., 1987
17	Massachusetts	McAlister, 1983
18, 19	Washington	Schinke et al., 1988
20	Not stated	Schinke & Blythe, 1981
21	Washington	Schinke & Gilchrist, 1983
22	Not stated	Schinke et al., 1986
23	Not stated	Schinke, Gilchrist, & Snow, 1985
24, 25	Not stated	Schinke et al., 1985

Note: Some programs were published in multiple publications. Some publications reported on more than one type of program. See Appendix C for a listing of these references.

differences should be minimal, however. Overall, the D.A.R.E.® and Tobler studies are highly comparable in terms of program focus, study methodology, and target audience. In assessing the magnitude of the effect sizes reported for the Tobler studies, it should be noted that the studies typically did not correct for the correlation among students in the same school. As explained for the D.A.R.E.® studies, this may produce inflated effect sizes. Because neither the D.A.R.E.® nor Tobler studies generally made adjustments for this interdependence of observations, the net effect on the comparison of effect sizes should be minimal.

The evaluation studies included in Tobler's meta-analysis are classified into two broad categories based on typical combinations of program content and program process (process describes the teaching approach, or how the content is delivered): noninteractive (N=9) and interactive programs (N=16).

Noninteractive programs emphasize intrapersonal factors and use more traditional teaching approaches. Activities typically are designed to increase knowledge about drugs, boost self-esteem, promote self-awareness, increase problem-solving skills, and promote values clarifications. These activities, in turn, are expected to encourage youth to make a personal decision to abstain from using drugs. Program content is usually introduced by the teacher in a didactic manner, and participatory activities often involve teacher-led discussions.

Interactive programs emphasize interpersonal factors and use a participatory teaching approach. Activities are designed to counter peer pressure to use drugs through developing drug refusal skills, promoting general social competencies, and correcting beliefs about the prevalence of drug use among peers. Program process emphasizes the interaction and exchange of ideas among peers, and it encourages active participation of all students in the classroom, particularly in small groups.

Consistent with other meta-analyses showing that programs emphasizing social skills tend to be the most effective at achieving their outcomes (Bangert-Drowns, 1988; Bruvold, 1993; Bruvold & Rundall, 1988; Tobler, 1986), Tobler's interactive programs produced larger effect sizes in all four outcome measures than noninteractive programs. Because D.A.R.E.® has features of both noninteractive and interactive programs, we compared D.A.R.E.® with both categories of programs.

The weighted mean effect sizes and 95% confidence intervals by outcome for the D.A.R.E.® studies and the two types of comparison programs are shown in Exhibit 7.6. To test whether the mean effect sizes differed significantly between D.A.R.E.® and the noninteractive programs and between D.A.R.E.® and the interactive programs, we also calculated the 95% confidence interval around the difference between the means.[1] If the confidence interval spans zero, this indicates that the difference between the two effect size means is not statistically significant. Conversely, if the confidence interval does not include zero, then the means are determined to be significantly different; that is, the D.A.R.E.® mean is significantly greater or less than the mean for the comparison programs. The difference between the weighted mean effect sizes for D.A.R.E.® and both noninteractive and interactive programs and 95% confidence intervals are shown in Exhibit 7.7. In addition, Exhibit 7.7 indicates whether the difference favors D.A.R.E.® or the comparison programs.

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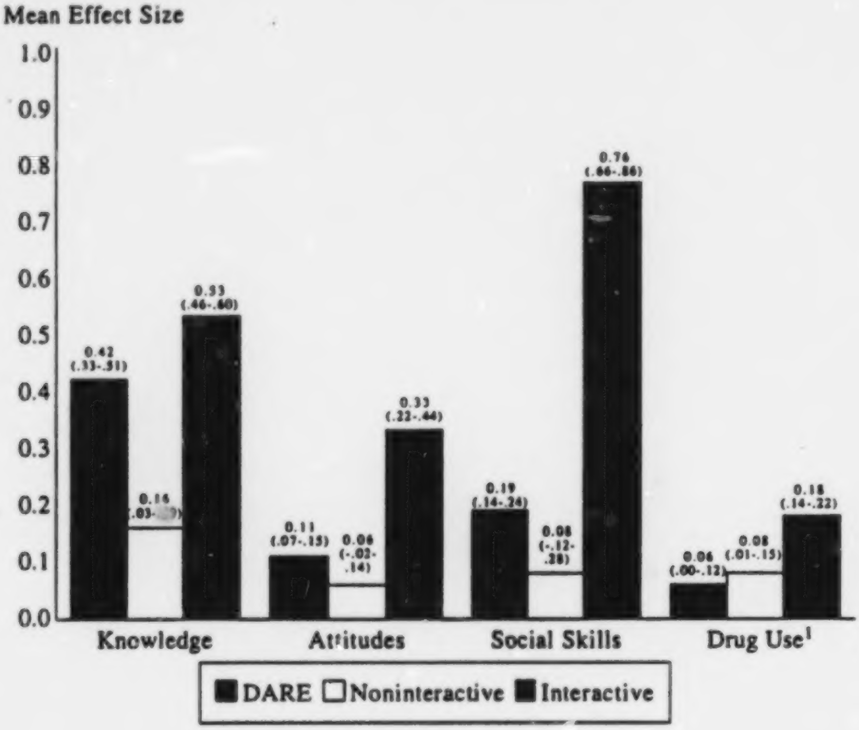
[1] The 95% confidence interval for the difference between the means is calculated as follows: the difference between the means plus or minus 1.96 multiplied by the square root of the sum of the inverses of the study weights (Hedges & Olkin, 1985).

Exhibit 7.6 **Weighted Mean Effect Size (and 95% Confidence Interval), by Outcome for D.A.R.E.® and Other Drug Use Prevention Programs**



¹ Includes alcohol, tobacco, and marijuana.

Exhibit 7.7 Difference Between Mean Effect Sizes (and 95% Confidence Interval), by Outcome, for D.A.R.E.® and Other Drug Use Prevention Programs

Outcome	$\lvert\overline{ES}_D-\overline{ES}_{NI}\rvert$	95% C.I.	Favors D.A.R.E.®	$\lvert\overline{ES}_D-\overline{ES}_I\rvert$	95% C.I.	Favors D.A.R.E.®
Knowledge	0.26	.10-.42*	Yes	0.11	.00-.22	No
Attitudes	0.05	-.04-.14	Yes	0.22	.10-.34*	No
Social Skills	0.11	-.09-.31	Yes	0.57	.46-.68*	No
Drug use[1]	0.02	-.11-.07	No	0.12	.05-.19*	No

Note: $\overline{ES}_D$ = weighted mean effect size for D.A.R.E.®; $\overline{ES}_{NI}$ = weighted mean effect size for noninteractive programs; $\overline{ES}_I$ = weighted mean effect size for interactive programs; | | indicates absolute value. Confidence intervals that include zero are not statistically significant; * = statistically significant.

[1] Includes alcohol, tobacco, and marijuana.

For knowledge about drugs, the mean immediate effect size achieved by D.A.R.E.® (0.42) is substantially and statistically significantly higher than the mean effect size for noninteractive programs (0.16). The D.A.R.E.® effect size is lower than that of interactive programs (0.53), but the difference is not significant.

For attitudes about drugs, the mean immediate effect size achieved by D.A.R.E.® (0.11) is larger than the mean achieved by noninteractive programs (0.06); the difference is not statistically significant. The D.A.R.E.® effect size is significantly less than the mean for interactive programs (0.33).

The same pattern is observed for skills. The mean D.A.R.E.® immediate effect size (0.19) is larger than for noninteractive programs (0.08) but smaller than for interactive programs (0.76). The difference in means between D.A.R.E.® and the noninteractive programs is not statistically significant, whereas the D.A.R.E.® mean is significantly less than for interactive programs.

For drug use (alcohol, tobacco, and marijuana averaged together), the mean immediate effect sizes achieved by D.A.R.E.® (0.06) and noninteractive programs (0.08) are not significantly different. The D.A.R.E.® mean is significantly smaller than the mean for interactive programs (0.18). Exhibit 7.8 shows a comparison of effect sizes and 95% confidence intervals separately for alcohol, tobacco, and marijuana use. Confidence intervals around the difference between the mean effect sizes are shown in Exhibit 7.9. The D.A.R.E.® mean effect sizes for alcohol and marijuana are significantly smaller than the effect sizes for noninteractive programs, while the mean effect size for tobacco is

Exhibit 7.8 Weighted Mean Effect Size, by Drug, for D.A.R.E.® and Other Drug Use Prevention Programs

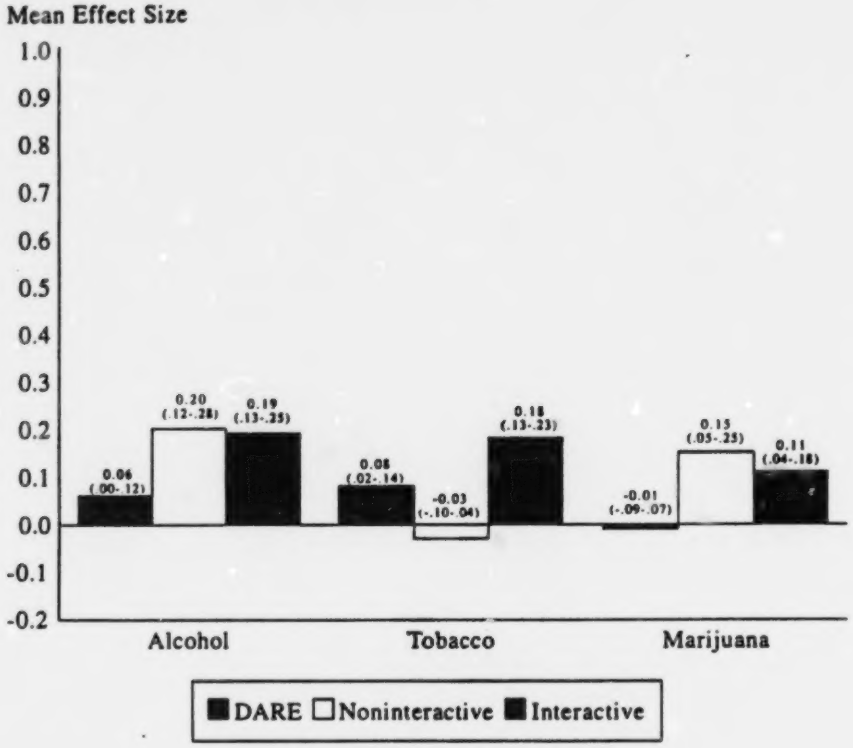


Exhibit 7.9 Difference Between Mean Effect Sizes (and 95% Confidence Interval), by Drug, for D.A.R.E.® and Other Drug Use Prevention Programs

Drug	$\lvert\overline{ES}_D-\overline{ES}_{NI}\rvert$	95% C.I.	Favors D.A.R.E.®	$\lvert\overline{ES}_D-\overline{ES}_I\rvert$	95% C.I.	Favors D.A.R.E.®
Alcohol	0.14	.05-.24*	No	0.13	.05-.21*	No
Tobacco	0.11	.02-.20*	Yes	0.10	.03-.18*	No
Marijuana	0.16	.04-.29*	No	0.12	.01-.23*	No

Note: $\overline{ES}_D$ = weighted mean effect size for D.A.R.E.®; $\overline{ES}_{NI}$ = weighted mean effect size for noninteractive programs; $\overline{ES}_I$ = weighted mean effect size for interactive programs; | | indicates absolute value. Confidence intervals that include zero are not statistically significant; * = statistically significant.

significantly larger. The D.A.R.E.® effect sizes for all three substances are significantly smaller than the comparable effect sizes for interactive programs.

A comparison of D.A.R.E.® effect sizes with effect sizes of noninteractive and interactive drug use prevention programs for fifth and sixth graders reviewed by Tobler suggests that D.A.R.E.® has been more effective in influencing knowledge, attitudes, and skills outcomes than noninteractive programs, although only the knowledge difference is statistically significant. D.A.R.E.® has been less effective, however, than interactive programs across all outcome measures, most prominently for social skills and drug use. The only difference in effect size means between D.A.R.E.® and interactive programs that was not statistically significant was for knowledge. For drug use, the average effect size for interactive programs was three times greater than the average D.A.R.E.® effect size; for social skills, four times greater than D.A.R.E.®; and for attitudes, three times greater. These findings suggest that greater effectiveness is possible with school-based drug use prevention programs for fifth- and sixth-grade pupils than is achieved by the original D.A.R.E.® core curriculum.

Methodological Considerations

Several methodological considerations relating to the evaluations included in our review and to the approach we used in conducting our review bear on the interpretation of the results.

Fundamental considerations are whether the D.A.R.E.® evaluations selected for review are methodologically strong and are sufficient in number. As is appropriate for meta-analysis, we used stated and objective criteria to select D.A.R.E.® evaluations for review. Because the evaluations we selected had a comparison group, administered both pretests and posttests, used quantifiable outcome measures, and made statistical adjustments for pretest differences on outcome measures, we can be reasonably confident in their findings.

Eight evaluations were included in the review; this is not a large number compared with the vast number of sites where D.A.R.E.® has been implemented. It far exceeds, however, the number of evaluations of any other widely available drug use prevention program. Most prevention programs developed and evaluated by researchers have been much less widely implemented, and have received less scrutiny, than D.A.R.E.® More important, however, when considering the adequacy of the number of studies, are the uniformity of D.A.R.E.®'s curriculum content and method of delivery across implementation sites, and the consistent results found across geographically heterogeneous studies. This uniformity and consistency suggest that a sufficient number of evaluations were identified for assessment of the original core curriculum's immediate effects. Even so, we would have preferred a full set of eight effect sizes for each outcome.

The immediate effect sizes for the D.A.R.E.® studies may have been attenuated compared with the comparison drug use prevention programs because the control groups were not pure "no treatment" groups. As documented by Tobler (1986, in press, 1994), effect sizes are lower when the control group receives some sort of drug education. Information generally was lacking from the D.A.R.E.® evaluations on alternative interventions received by the control groups, but it is likely that most control groups received some drug education because the studies occurred after the passage of the 1986 DFSCA. However, approximately half (54%) of the comparison programs used for Tobler's study also were conducted between 1986 and 1990, suggesting that they also may suffer from the same effect. Nevertheless, the lower effect sizes of the D.A.R.E.® programs compared with the interactive programs in Tobler's study could be due in part to the likelihood that the control groups for the D.A.R.E.® studies received a stronger intervention than did the control groups in the studies reviewed by Tobler.

Most of the drug use prevention programs evaluated by Tobler are smaller-scale university research-based evaluation studies, while D.A.R.E. is a widely available curriculum. In both cases, however, the interventions were implemented by service providers and the evaluations were conducted by researchers. Even so, the intensity of efforts devoted to interventions conducted for evaluation research may be greater, the implementation conditions more optimal, and the possibility for scrutiny and control greater than would be the case for a program that is widely disseminated. Some diminished effectiveness may be inevitable once programs are implemented under real-world conditions. This could be an important factor in explaining some of the differences in effect sizes between D.A.R.E. and the comparison programs.

Differences in the studies selected for our D.A.R.E.® review and selected by Tobler could also contribute to the relative differences in effect sizes between these programs. The differences include the exclusion of studies by Tobler that did not evaluate drug use behavior and the inclusion of outcomes from later posttests. In addition, some sixth graders in the programs reviewed by Tobler were in middle rather than elementary school, and some programs focused on a single drug, such as tobacco, rather than multiple drugs as is the case with D.A.R.E.® It is possible that these differences could decrease, increase, or not change the relative differences in effect sizes. For example, differences might have been less if programs focused on a single substance were not included in Tobler's meta-analysis. It is possible that single substance programs have greater impact on use of that substance than generic drug education programs, although study of this possibility is limited and findings are mixed (Tobler, 1994). On the other hand, differences might have been greater had Tobler excluded results from posttests beyond immediate follow-up because curriculum effects tend to decay rather than increase with time (Ellickson, Bell, & McGuigan, 1993; Murray, Pirie, Luepker, & Pallonen, 1989). The limited number of programs precluded assessment of these possibilities, as well as whether program effects differ, and in what direction, for sixth graders in elementary versus middle school.

Finally, it is possible that our results might have differed if there had been sufficient numbers of D.A.R.E.® evaluations and studies in Tobler's analysis to analyze effect sizes while controlling the effects of other factors. In addition to the differences between the D.A.R.E.® and Tobler studies described above, it is possible that other factors may have varied across the intervention programs and associated evaluation studies that contributed to the observed differences in effect sizes. For example, substantial variation in characteristics of the students (e.g., in race/ethnicity), features of the interventions (e.g., variations in program intensity), and features of the research design (e.g., experimental versus quasi-experimental design) could have contributed to the differences in program effects. In other words, some of the differences in effect sizes observed between the D.A.R.E.® studies and Tobler's studies could have been due to other factors than the type of program. Unfortunately, these possibilities could not be tested because of the small number of studies. Further testing is warranted when larger samples of D.A.R.E.® and comparison studies are available.

Summary

From a pool of 18 quantitative D.A.R.E.® evaluation studies identified by this review, eight met specified methodological criteria and were selected for further review. Each of these eight evaluations had a control group, administered both pretests and posttests, used quantifiable outcome measures, and made statistical adjustments for pretest differences on outcome measures. Effect sizes for these studies at immediate posttest, both individually by study and averaged across studies, showed that the original D.A.R.E.® core curriculum had strong and statistically significant effects on knowledge about drugs. The curriculum also had a positive and significant impact on social skills. The core curriculum had smaller, although statistically significant, effects on attitudes about drug use, attitude toward the police, and self-esteem. The curriculum had limited immediate effects on use of alcohol, tobacco, and marijuana. Although the effect on tobacco use was small, it was statistically significant.

Weighted mean effect sizes were used to compare D.A.R.E.® with other school-based drug use prevention programs targeted at same-age youth. The original D.A.R.E.® core curriculum compared favorably with noninteractive drug use prevention programs, which emphasize intrapersonal factors and use more traditional teaching methods. The original core curriculum compared less favorably, however, with interactive drug use prevention programs. Interactive drug use prevention programs, which emphasize interpersonal skills and an interactive teaching style, have been shown to be the most successful drug use prevention programs (Tobler, in press, 1994).

Several methodological considerations should be noted in interpreting the results of this review. These include the number of methodologically rigorous D.A.R.E.® studies in our review; the purity of the control groups in the D.A.R.E.® evaluations compared with those in the comparison programs; and the relative impacts of commercial programs such as D.A.R.E.® and smaller scale research-based interventions; and the small number of D.A.R.E.® and comparison studies available for assessing other potential explanations for differences in program effectiveness.

The findings of the D.A.R.E.® outcome assessment are discussed fully in Chapter 8.

CHAPTER 8
DISCUSSION AND RECOMMENDATIONS

In preceding chapters, we presented data acquired from our implementation and outcome assessments of D.A.R.E.® Information about D.A.R.E.®'s operations, prevalence, and effectiveness was collected from a variety of sources. Given the complex nature of the D.A.R.E.® organization, it is not surprising that the findings are voluminous. Nor is it surprising that although some findings attest to the strengths and robustness of D.A.R.E.®, others indicate limitations. This final chapter presents a discussion of these findings. In the course of this discussion, we highlight the key findings and, where appropriate, make recommendations for programmatic changes and additional research.

This chapter is organized into three sections. Highlights from the implementation assessment are presented in the first section, followed by key findings from the outcome assessment. To facilitate a review of the study's many and sometimes disparate findings, our discussion is organized by some of the questions that guided these study components. In the final section, we attempt to synthesize the most important findings and present overall conclusions derived from the study.

Implementation Assessment

As discussed in Chapter 1, we conducted an implementation assessment of D.A.R.E.® that had two primary objectives. These were, first, to conduct an assessment of the organizational structure and operation of representative D.A.R.E.® programs nationwide to learn what factors contribute to the effective implementation of D.A.R.E.® programs nationwide and, second, to determine how D.A.R.E.® is tailored to meet the needs of specific populations.

To address these issues, we collected data from sources at all levels of the multi-layered D.A.R.E.® institution. We presented information concerning operations at the national and regional level of D.A.R.E.® in Chapter 3, State-level operations in Chapter 4, and local-level operations in Chapters 5 and 6. We obtained information from interviews with Glenn Levant of D.A.R.E.® America and with coordinators and/or educational advisors from each of the five Regional Training Centers (RTCs), a review of available BJA documents, a survey of the State D.A.R.E.® coordinators, a survey of a nationally representative sample of school district drug prevention coordinators, and site visits to four purposively selected schools (two with D.A.R.E.® and two without).

How extensively is D.A.R.E.® implemented nationwide, and how does D.A.R.E.®'s prevalence compare with that of other curricula?

One of the most important findings of this study was the extraordinary prevalence of D.A.R.E.® In the 1991-1992 school year, 44 of the 50 States had State coordinators for their D.A.R.E.® programs. Based on our sample of school districts, we estimate that over half the districts in the country implemented at least one of the D.A.R.E.® curricula in one or more of their schools. In comparison, the two other most prevalent prevention programs, Quest and Here's Looking at You (HLY), were used in at least one school in about 27% and 24% of the districts, respectively.

Another important finding is that the demand for D.A.R.E.® over the next 5 years is going to increase substantially. Over 40% of the districts with D.A.R.E.® planned to expand its use. Of those districts without D.A.R.E.®, 21% expressed the intention to institute it, and 20% reported that they were as yet undecided about using D.A.R.E.®

Slightly over half of all school districts implemented D.A.R.E.®'s core curriculum, which is targeted at 5th- and 6th-grade pupils; around 17% implemented the K-4 curriculum, 11% the junior high school curriculum, and 3% the senior high curriculum. Around 12% of the school districts used Quest at the elementary level, 22% at the middle/junior high school level, and 3% at the senior high school level. Around 22% of the school districts used HLY at the elementary level, 14% at the middle/junior high school level, and 9% at the senior high level.

Does the extent of D.A.R.E.® implementation vary by demographic characteristics of school districts, such as geographic region, urbanicity, SES, and minority status? How does D.A.R.E.® compare with other curricula in this regard?

The Midwest region had the highest percentage of districts using D.A.R.E.® (59.9%) , followed by the Southeast (56.8%), East (55.8%), West (48.8%), and Southwest (37.1%). Use of Quest was highest in the Midwest region (35.8%) and use of HLY was highest in the East (46.4%). Use of all three prevention programs was lowest in the Southwest region. The lower rates of program use in the Southwest can probably be largely attributed to its rural nature, and thus the greater difficulties in fielding D.A.R.E.® officers to geographically dispersed schools.

There were no statistically significant differences in the use of D.A.R.E.®, Quest, or HLY by either the minority status or SES of the school districts. Urban/suburban school districts were, however, significantly more likely to use D.A.R.E.® and HLY than rural districts. Further, large districts were significantly more likely than small districts to use D.A.R.E.® We suspect that these findings may be attributed to the relatively greater resources available to urban and large law enforcement agencies. In the case of D.A.R.E.®, these agencies may be at greater liberty to free up their officers' time to teach D.A.R.E.®

It is difficult to determine what adjustments might make D.A.R.E.® more accessible to rural and small school districts. We believe that ways of improving access to

D.A.R.E.® in rural and small districts should be examined. For example, methods for distributing DFSCA funds to favor rural and small school districts instead of distribution solely on a per capita basis could be explored.

How well integrated is D.A.R.E.® with other drug use prevention programs offered in schools?

Neither D.A.R.E.® nor any other drug prevention program can or should stand alone in a school district; instead, such programs should be integrated into a comprehensive curriculum that is developmentally appropriate and implemented at every grade level. Indeed, all school districts receiving DFSCA funds must implement a comprehensive K-12 drug prevention program. Even were a school district to implement all four of D.A.R.E.®'s student curricula, additional drug prevention programming would still be required in the grades to which D.A.R.E.® was not directed. Our survey showed that only 2% of the school districts used only D.A.R.E.® and no other drug prevention program. Almost two-thirds of the school district coordinators with D.A.R.E.® reported that the program was "very well" integrated with other prevention programs.

How does D.A.R.E.® compare with other alcohol and other drug (AOD) programs in terms of support and satisfaction for the programs?

The school district drug prevention coordinators indicated that support for D.A.R.E.® is very strong not only among students and school staff—whose support the coordinators rated as very high—but also among parents and the community. These ratings were also markedly higher than those for other AOD programs.

The responses of the coordinators also indicated the high regard in which the D.A.R.E.® curricula are held. Two-thirds of the school district coordinators with D.A.R.E.® rated the curricula, as well as how it is taught, as "very satisfactory"; over three-quarters gave the same rating to how students receive it. This endorsement is all the more vivid when contrasted with coordinators' ratings of other AOD prevention programs; only one-third of coordinators with other AOD programs rated these programs as highly.

A close examination of these findings reveals that coordinators in districts with a high percentage of minority students were more likely to rate students' receptivity to D.A.R.E.® as very high than those in districts serving predominantly white students. This finding is not confounded by the district's urbanicity or SES because comparisons between coordinators from these pairs of districts (i.e., by high and low SES and by rural and urban/surburban) were not statistically significant.

Of even greater importance are the satisfaction ratings that the prevention coordinators gave to D.A.R.E.®'s effects on students. Almost two-thirds of the coordinators with D.A.R.E.® indicated that they were very satisfied with D.A.R.E.®'s effects; less than one-quarter of those with other AOD programs reported that they were very satisfied with the effects of these AOD programs.

Are D.A.R.E.® and other drug prevention programs adapted to a community's particular needs?

D.A.R.E.® is distinguished by the integrity and consistency with which its curricula are administered. During their training, D.A.R.E.® officers are instructed not to deviate in any substantive fashion from the curriculum. The D.A.R.E.® core curriculum allows only one modification–a gang activity lesson that can be added in schools where gangs are perceived to be a problem.

Over two-fifths of the coordinators with D.A.R.E.® and over half of the coordinators with other AOD programs reported that the curriculum had been adapted at least to some degree, however modest. The most frequently mentioned reason for adaptation of both D.A.R.E.® and other AOD programs was drug availability at their schools. Coordinators with D.A.R.E.® provided some hints as to the types of topics introduced, which included discussing specific locally prevalent drugs, drug abuse at home, and local drug arrests. During the site visit to the urban school district, we learned that some police officers incorporate their own street experiences into their lessons. The second and third most frequently mentioned reasons for adaptation for D.A.R.E.® and other AOD programs were student/community poverty and racial/ethnic composition.

Although we recognize that some tailoring of D.A.R.E.® to the needs of a particular audience may be appropriate, we encourage fidelity to the curricula and careful monitoring of officer presentation. We strongly suggest that current procedures of notifying the D.A.R.E.® America RTC Advisory Board curriculum committee of limitations in the curricula and of substantive modifications of the curricula originating from that agency be continued. Allowing officers to modify the program at will would quickly result in disintegration of the curriculum and the program.

To what extent are classroom teachers and other community members or agencies involved in D.A.R.E.®?

The original core curriculum, which was in use when the survey was conducted, encouraged classroom teachers to remain in the classroom and to communicate D.A.R.E.®'s objectives to students. However, teachers played little active part in the actual instruction. Teachers and D.A.R.E.® officers together teach the junior and senior high curricula; at the senior high level, they are even trained together. According to the drug prevention coordinators, teachers in almost 90% of the districts remained in the classroom during D.A.R.E.® lessons, and in 84% teachers were reported as "actively involved" in D.A.R.E.® The revised core curriculum encourages classroom teachers to take a more active role.

D.A.R.E.® officers already are expected to meet for an hour or so with the classroom teachers in a brief, structured orientation and discussion. To the extent that time and resources permit, we encourage the co-training of teachers and officers at every curricular level because we believe that such training would enhance effective communication and coordination between the two.

One of D.A.R.E.®'s strengths is the active involvement of individuals in D.A.R.E.®, both within and outside of the school. Half of the prevention coordinators reported that school staff, other than classroom teachers, were actively involved in D.A.R.E.®, and almost one-quarter reported that civic groups were actively involved. This level of involvement surely makes a major contribution to the high level of enthusiasm that D.A.R.E.® generates. We note that only a relatively few coordinators reported that "youth groups" were involved in D.A.R.E.® We recommend increasing the involvement of both youth and church groups as a way to reinforce D.A.R.E.®'s message and to help establish anti-drug use norms throughout the school and community.

About half of the coordinators reported that parents were actively involved in D.A.R.E.® Our site visits, however, suggested that parents tend to be rather detached. D.A.R.E.®'s efforts to reach out to parents through the parent curriculum are commendable and, we hope, will prove successful. Many such efforts in the past have proved futile because the parents who are most in need of educational intervention are also the most difficult to reach and most resistant to attending meetings. One additional method to involve parents more directly in D.A.R.E.® is to assign specific parent-child homework exercises that, at the very least, will open vital lines of communication between parent and child concerning drug use. A second method that could supplement the D.A.R.E.® parent curriculum would be to develop a freestanding, 1-hour video. This video could be used to provide an introduction to D.A.R.E.® and a synopsis of the D.A.R.E.® curriculum, as to well as provide information about how to effectively reinforce D.A.R.E.®'s message. It might, for instance, include advice about how to talk to youth about drugs and stress the importance of serving as a model for a drug-free life. We, thus, recommend that D.A.R.E.® consider and weigh the relative merits of a variety of strategies designed to reach parents who may not respond to the D.A.R.E.® parent curriculum.

What role, if any, do D.A.R.E.® officers have in treatment referral for students who already have substance abuse problems?

An additional role that D.A.R.E.® officers can undertake is to serve as members of student assistance program (SAP) teams. Of the school districts that had both SAPs and D.A.R.E.®, 37% had D.A.R.E.® officers who had been trained to participate in the district's SAP. Most of the coordinators rated D.A.R.E.® officers as highly as they did guidance counselors (and much higher than teachers) in effectiveness in implementing SAPs. We recommend that D.A.R.E.® officers become familiar with SAPs in their schools and, when feasible, become involved in these programs. We also recommend that the D.A.R.E.® America RTC Advisory Board establish procedures for officers to follow when their work with SAPs comes in conflict with their duties as a police officer, so that the confidentiality of youth and their parents who have drug problems may be maintained.

How is D.A.R.E.® managed at the national, regional, and State level, and what are the major responsibilities of the governing bodies?

At the national level, all D.A.R.E.® operations are overseen by D.A.R.E.® America, a nonprofit organization that bears ultimate responsibility for promoting, monitoring, and overseeing the program. In this capacity, D.A.R.E.® America is assisted by a number of regional and State organizations. These include five RTCs that constitute the D.A.R.E.® America RTC Advisory Board and make recommendations to D.A.R.E.® America concerning the accreditation of State-level training centers and monitor the fidelity with which the D.A.R.E.® curriculum is taught at the local level. Educational specialists representing the RTCs, together with staff from the Los Angeles United School District (LAUSD) and assisted by a Scientific Advisory Committee, also make recommendations to D.A.R.E.® America concerning modifications to the various D.A.R.E.® curricula.

State-level D.A.R.E.® entities include chartered nonprofit D.A.R.E.® organizations designed to support the program in that State; such organizations currently exist in over one-third of the States, and it is expected that they will be chartered in all 50. In those States that currently lack such an organization, there is typically a State employee designated as a D.A.R.E.® coordinator. In addition, 42 States currently have developed State Training Centers (STCs), the purpose of which is to conduct training for prospective D.A.R.E.® officers.

Updating and improving curricular materials and teaching strategies is a difficult task. We commend D.A.R.E.® America for convening a Scientific Advisory Committee, and for choosing Dr. Kleber as committee chair. It is our understanding that the committee's charge is an expansive one and includes reviewing current and ongoing D.A.R.E.® evaluations, and integrating relevant findings from other evaluations of school-based drug prevention programs. We recognize the constraints that D.A.R.E.® faces in updating the curricula, given the considerable costs required to retrain D.A.R.E.® officers appropriately. Hence, it is probably not feasible to make substantive changes to the curricula more frequently than once every 5 years, at a minimum.

Another source of expertise that should be tapped as input for curricular changes is the U.S. Department of Education. Various D.A.R.E.® materials encourage the establishment of strong ties between D.A.R.E.® and education at both the State and local levels. At the national level, an educational consultant from each of the five RTCs make suggestions concerning the curricula. However, it is our understanding that this group lacks representation from a national-level education agency. We thus recommend that the D.A.R.E.® America request an appropriate member of the U.S. Department of Education to serve as an ex officio member, who should represent the department's extensive drug prevention program. Such an individual would be able to provide D.A.R.E.® America with guidance as to how effectively to integrate D.A.R.E.® into the Department of Education's comprehensive, K-12 drug prevention strategy. Furthermore, the inclusion of a U.S. Department of Education staff member seems particularly appropriate as long as D.A.R.E.® continues to be mentioned as a specific line item on the DFSCA budget.

State coordinators informed us that over one-third of the States had policy advisory boards (PABs), a proportion that may have increased in the 2 years since our survey. Because PABs can be instrumental in developing and maintaining communications and positive relationships among the various agencies involved in D.A.R.E.®, we recommend that all States establish such boards.

The great majority of the PABs comprise representatives of both State and local law enforcement and education. Other key individuals from the community who have a stake in the success of D.A.R.E.® or who could provide different and valuable perspectives on D.A.R.E.® were less well represented. These include parents, members of community-based organizations, citizens-at-large, members of associations of educators, and business representatives. The latter could be particularly helpful in securing resources for D.A.R.E.® We thus recommend that State-level PABs systematically examine their representation and seek ways to reach out to new and potentially useful constituencies by expanding their membership.

Because of the unique partnership between D.A.R.E.® and education, it is critical that State-level D.A.R.E.® operations have strong ties to education at the State level. Around one-third of the State D.A.R.E.® coordinators reported a great deal of communication with the State Department of Education, and another 50% reported having at least some communication. We also note that one State D.A.R.E.® coordinator was affiliated with a State Department of Education, and that three PABs were chaired by staff members from State or local education departments. The need to improve communication with their State's education departments was mentioned by several State D.A.R.E.® coordinators.

One way to improve communication between D.A.R.E.® and education is for State D.A.R.E.® programs to retain educational consultants to act as liaisons. Two-thirds of the State coordinators reported employing such a consultant, and almost all of the States without educational consultants considered acquiring a full-time educational consultant to be priority. We recommend that all State D.A.R.E.® programs secure educational consultants.

In a few States, the State D.A.R.E.® programs employed their own educational consultants. In most States, however, educational consultants were employed by education departments. We believe the liaison between law enforcement and education will be most effective if the consultants are based in the State Departments of Education. Ideally, to ensure a maximum level of coordination both with the State Departments of Education as a whole and with their drug-free schools program in particular, these consultants should be members of the departments' alcohol and drug prevention offices. Certainly, regardless of whether the education consultants are employed by education or directly by the State D.A.R.E.® program, they should seek all appropriate means to establish meaningful affiliations with State-level educational agencies. By the same token, education agencies should be apprised of—and take seriously—their responsibility to include D.A.R.E.® representatives in planning statewide drug prevention activities. To be truly effective, education and law enforcement need to work together in a partnership at the national and State levels as well as at the local level.

Educational consultants' roles may vary, but besides providing a "bridge" between the two organizations, the consultants should help ensure that D.A.R.E.®'s multiple curricula fit into a comprehensive, developmentally appropriate drug prevention program. Several coordinators mentioned that consultants could assist with program evaluation and with monitoring officer performance in the classroom. It may be appropriate to consider expanding the roles of educational consultants further, perhaps to provide assistance in these areas.

How is D.A.R.E.® managed at the local level?

At the local level, the majority of the D.A.R.E.® programs were managed by a single law enforcement agency, primarily the sheriff's or city/town police department. Officer selection and classroom activities was most frequently mentioned as the responsibility of the police department, selection of D.A.R.E.® classrooms was the responsibility of the school administration and staff, and responsibility for selection of D.A.R.E. schools was shared by the police department, school administration and staff, and the school superintendent.

In a number of places throughout this report, we have mentioned that D.A.R.E.® is a collaborative venture between a local school district and a law enforcement agency, and we have emphasized the importance of developing a positive relationship between the two from the outset. One way to foster this relationship at the local level is with written agreements that clearly state the roles and responsibilities of each. Less than half of the drug prevention coordinators mentioned that their districts had such an agreement. We recognize that some of the coordinators responding to our survey may simply not have known that a written agreement existed, particularly if they were new in their position and the agreement had been written before they were employed. We recommend that the law enforcement agencies without such agreements secure them. Furthermore, we recommend that the agreements be reviewed with school administration/staff at least every other year. This biennial review would ensure that all parties are aware of their responsibilities and could also serve as forums to discuss issues relating to D.A.R.E.®'s implementation and to develop additional ways in which the D.A.R.E.® officer can serve the schools. They could also provide opportunities for the school district to recognize the officer's contribution.

Another way to engender a positive collaboration between law enforcement and education is by developing close liaisons between the D.A.R.E.® officer and classroom teacher. Such liaisons have obvious benefits, including providing a role model for new officers, sharing the burden of difficult classes or difficult students, and increasing the likelihood that the teacher will reinforce the D.A.R.E.® message in other areas of instruction. We learned from the drug prevention coordinators' survey that classroom teachers in almost three-quarters of the school districts with D.A.R.E.® now integrate the D.A.R.E.® message into their other activities in the classroom, so that the program has a strong foundation in this area on which to build. We thus recommend that D.A.R.E.® officers spend more time consulting with classroom teachers, both formally at the beginning of the semester and informally as the semester progresses. Topics for conversation should include both the content of the D.A.R.E.® curriculum and how teachers can effectively articulate an anti-drug message.

What funding mechanisms are at the national/regional, State, and local levels?

At the national/regional level, funding is received primarily from BJA. The RTC coordinators mentioned the need to find permanent funding sources that will supplement Federal support and make D.A.R.E.® less vulnerable to the vicissitudes of such funding. One solution to this issue is to establish or strengthen reliance on State or local support, particularly the latter.

The majority of State D.A.R.E.® programs receive funding from BJA grants; around one-fourth of the States received funding from governors' grants, grants from other State agencies, and legislative funds. Four States reported that they received no funding for their State-level operations, and around one-third mentioned that maintaining and increasing their funding or locating new funding sources were among the most significant issues facing them. If they are to discharge multiple responsibilities for developing and managing their D.A.R.E.® programs successfully, the States must have sufficient support. We recommend that the D.A.R.E.® America RTC Advisory Board explore further the various sources of support used by the State programs, and how these have been obtained, and then provide technical assistance to those States that currently operate with either no funding or whose funding is precariously low. D.A.R.E.® America could perhaps play a role in assisting the development and maintenance of the STCs by providing modest grant programs to assist States.

At the local level, the cost of assigning a police officer to deliver D.A.R.E.® is assumed by the local city or county law enforcement agency, and thus, ultimately, by the community. Only a small minority of prevention coordinators (one in six) indicated that program costs were a barrier to implementation. D.A.R.E.® America assumes the costs of program curriculum materials. The coordinators also informed us that primary support for D.A.R.E.® came from law enforcement, but that DFSCA funds also played a major role in supporting D.A.R.E.®, as did (to a lesser extent) school district funds. We note that non-D.A.R.E.® drug prevention programs appear much more dependent on DFSCA funds than does D.A.R.E.® Given projected cuts in the DFSCA budget, which we understand may amount to as much as 25% in the near future, D.A.R.E.®'s relative lack of reliance on DFSCA funds will prove beneficial. We also note that D.A.R.E.® is relatively less dependent on local funds than are non-D.A.R.E.® programs, which also decreases D.A.R.E.®'s vulnerability to cuts as competing demands increase ever tighter budgets.

How adequately does D.A.R.E.® training meet the needs of an expanding and changing program?

As noted earlier, the core curriculum has recently been revised, and the new version is currently being implemented. Because of D.A.R.E.®'s magnitude, curricular changes are far-reaching and, thus, expensive and time-consuming to implement. Therefore, modifications to any of the D.A.R.E.® curricula must necessarily be weighed against the substantial costs associated with updating and distributing material, as well as retraining D.A.R.E.® officers. Nevertheless, modifications to the curricula will need to be made periodically if D.A.R.E.® is to remain on the "cutting edge" of drug prevention programming.

To reduce the burden on D.A.R.E.® of keeping officers up-to-date with modifications to the curriculum, the RTCs should explore novel means to provide officers with curriculum and teaching updates and to provide formal in-service training on a periodic basis. One in-service training method that should be considered is the use of the Law Enforcement Television Network (LETN). Because a substantial and growing number of police and sheriffs' departments are linked to this network, it could be an effective and cost-efficient means of providing high-quality in-service programming to D.A.R.E.® officers around the country. Ideally, such a system should be interactive to allow for discussions between officers and trainers. Another less costly and more accessible method that could be explored is the use of videotaped programs to explain and demonstrate changes to curricula and teaching methods. Still another alternative is to use an on-line computer billboard to distribute the latest D.A.R.E.® information. This method could be made available at very low cost to all police departments with computers and modems. We learned from the January 1992 D.A.R.E.® America RTC Advisory Board minutes that such a system was being developed by D.A.R.E.® America and indeed may now be in place.

In-service training should clearly not be restricted to teaching D.A.R.E.® officers how to implement modifications to existing curricula. Such training could also serve to increase the competence of newly minted officers over their first semester. Regardless of how powerful and effective the initial 80-hour introduction to D.A.R.E.® is, D.A.R.E.® officers are bound to forget some of what they have been taught when, 3 months later, they are teaching one of the final D.A.R.E.® lessons for the first time. One potentially useful device would be to develop and distribute taped versions of an expert D.A.R.E.® officer delivering the curriculum to real classrooms, which new officers could be encouraged to review immediately prior to the first time they teach the lesson. Such tapes could serve several purposes: to reinforce the content of what should be taught, to model how the lesson should be taught, and to teach classroom management techniques. Each videotape might highlight dealing with a special problem (e.g., how to generate a discussion when students tend to be silent; how to draw out a shy or largely silent child; and how to respond when a child discloses drug use by a peer, friend, or family member). Each of these tapes should be relatively short (or they will not be viewed) but could be followed by a summary of the key points the officer should keep in mind in teaching the next lesson. The tapes would also help ensure that a primary goal of D.A.R.E.® be reached--that lessons be taught uniformly.

Another training issue confronting the RTCs is the development and maintenance of STCs.[1] As D.A.R.E.® continues to grow—and our study has demonstrated that demand for D.A.R.E.® shows no signs of abatement—the RTCs will become increasingly challenged to meet the training and monitoring needs of their constituent States. The development and maintenance of STCs is critical because the RTCs cannot assume the multiple burdens of training, mentoring, and monitoring D.A.R.E.® officers, as well as assisting local law enforcement in developing and maintaining effective ties with school districts. RTC coordinators indicated that training and monitoring officers already strain the capacities of the RTCs. We recommend that sufficient funding be appropriated to establish and/or maintain an STC in every State.

D.A.R.E.® officers are not the only D.A.R.E.® staff in need of ongoing training and technical assistance; several RTC coordinators indicated that many of the State D.A.R.E.® coordinators have a similar need. RTC coordinators also indicated that State coordinators need support in developing lines of communication and authority with local-level law enforcement agencies and school districts, many of which have been operating with a fair degree of autonomy or have been used to dealing directly with the RTCs. It might be helpful if the RTCs brought together their constituent State coordinators at least yearly to discover and discuss common needs and concerns and provide technical assistance to the coordinators as a group as appropriate. However, the need will still exist for resources to support individual consultation between the RTCs and their respective State coordinators.

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[1] We note that 34 of the responding State coordinators indicated that the State already had a STC.

As we mentioned earlier, the demand for D.A.R.E.® in school districts that currently lack the program is likely to be exacerbated by the lack of available D.A.R.E.® officers. Fully 60% of the school districts indicated that they want either to begin or increase their use of D.A.R.E.® Some of the RTC staff indicated training may not be able to keep up with the demand for D.A.R.E.® Almost 15% of the drug prevention coordinators identified lack of sufficient officers as a barrier to implementing D.A.R.E.® This problem was illustrated in the urban D.A.R.E.® school district we visited, where lack of available officers led to dissatisfaction on the part of school officials as officers were moved from one school to another to accommodate demand. Clearly, those communities in which D.A.R.E.® is a high priority but which lack sufficient D.A.R.E.® instructors should provide greater support to their law enforcement agencies to recruit and train additional officers. Further, the surprisingly high prevalence of the relatively new junior and high school D.A.R.E.® curricula suggests that each community should examine the extent of the perceived need for each D.A.R.E.® curriculum and develop a long-range plan to identify and fund additional officers as necessary.

Any substantive curricular changes affecting what, and especially how, D.A.R.E.® officers teach, should be accompanied by a determined effort to ensure that these changes are fully reflected in officer behavior in the classroom. The RTC coordinators clearly stressed the need for increasing officer monitoring in the field as well. Monitoring officers, however, is only part of the task. Adequate resources should also be made available to allow mentors to work closely with officers whose performance needs improvement.

Outcome Assessment

The D.A.R.E.® outcome assessment, described in Chapter 7, had four primary objectives. These were (a) to identify prior studies of D.A.R.E.'s effectiveness as a drug use prevention program, (b) to assess the quality and adequacy of the methodologies of these studies, (c) to summarize D.A.R.E.®'s effectiveness based on this research, and (d) to compare D.A.R.E.®'s effectiveness with that of other school-based drug use prevention programs.

We focused our assessment on the original D.A.R.E.® core curriculum, which is the heart of the D.A.R.E.® program. We did not include the junior high school, senior high school, and other D.A.R.E.® curricula in the outcome assessment because they are more recent, not as prevalent, and generally have yet to be evaluated. Future evaluation efforts should focus on these curricula, as well as on the revised core curriculum implemented in September 1994.

Questions that guided the outcome assessment are discussed in this section.

What were the scope, reliability, and technical quality of the D.A.R.E.® assessments?

A number of States and smaller localities have been actively involved in assessing the D.A.R.E.® core curriculum since 1983, when the program was initiated in Los Angeles. By using multiple sources to identify studies, we obtained reports of 18 outcome studies in twelve States and one Canadian province. These studies collected data from students concerning D.A.R.E.®'s effectiveness in influencing outcomes the curriculum seeks to change.

We defined a set of methodological criteria to use in assessing the quality and adequacy of the study methodologies. The criteria, based on review of the evaluation methodology literature, were (a) that the study compared students who received D.A.R.E.® to students in a control or comparison group who did not receive D.A.R.E.®; (b) that outcomes of interest, such as drug use, were measured both before D.A.R.E.® was implemented and after the program ended;[2] (c) that measures of the outcomes were constructed so as to ensure reasonable certainty that they were measured accurately; and (d) that in the absence of random assignment, the analysis strategy adjusted for any initial differences on outcome variables between D.A.R.E.® and comparison students.

Half of the 18 studies met these methodological criteria; however, one study was not considered further because the children were tested 1 year later rather than immediately after the program. That 50% of the studies were of this technical quality suggests that a high level of effort has been invested in carefully evaluating D.A.R.E.® Because these studies avoid many of the problems that commonly undermine evaluation studies, reasonable confidence can be placed in their findings. Some of the studies exceeded our criteria, for example, by randomly assigning D.A.R.E.® to schools, by analyzing attrition effects, by statistically adjusting differences in students' background characteristics, or by using an analysis strategy appropriate to the research design. We recommend that these features be incorporated into future studies.

In assessing the findings of the eight methodologically rigorous D.A.R.E.® studies, it should be noted that the studies are not a national sample of representatively selected sites. It is reassuring, however, that the findings tended to be consistent across studies, indicating that the conclusions they suggest about the effectiveness of the D.A.R.E.® core curriculum are reliable.

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[2] Studies in which D.A.R.E.® was randomly assigned were not required to administer a pretest for inclusion in our review. All three studies with a randomized experimental design, however, administered both a pretest and posttest.

What gaps in the D.A.R.E.® assessments merit attention?

Our review of studies suggested several methodological issues that should be addressed directly and critically by future studies. These include the complete and careful reporting of the research design and results, contamination of the comparison group, the appropriateness of the analysis strategy, and the control and analysis of attrition.

Although most of the studies we reviewed documented the research procedures and methods, some did not provide sufficient detail. Thorough documentation is needed for assessing and interpreting the results; information was most often lacking in the description of the study sample. In addition to the exact sample sizes of the D.A.R.E.® and comparison groups, sociodemographic information such as whether recipients live in urban, suburban, or rural areas, their racial/ethnic composition, and their SES, should all be reported. This information is needed for assessing the degree to which study results may be generalized. It also can be used to test whether D.A.R.E.®'s effectiveness varies by characteristics of the sample. For example, is D.A.R.E.® equally effective among inner-city, suburban, and rural students and among white, African American, and Hispanic students? Almost none of the studies we reviewed made these sorts of assessments. Sociodemographic information also is relevant when making comparisons between studies (as we did between D.A.R.E.® and other school-based drug use prevention programs) in order to assess the similarity of the recipients of programs being compared.

An issue related to the completeness of reporting is the need for reports of research to be accessible to all those interested in D.A.R.E.®, including sponsors, educators, parents, police officers, other researchers, and concerned citizens. Most of the studies we identified were not reported in the published literature, and therefore are not easily accessible. It is vitally important that reports be made quickly and widely available. As we have suggested earlier, we recommend that a library of D.A.R.E.® evaluation reports and associated summaries of key findings be maintained by the D.A.R.E.® America RTC Advisory Board. The extensive communication channels between local, state, and national D.A.R.E.® entities should facilitate the prompt identification and dissemination of evaluation studies.

One of the most important methodological issues raised by our review is the potential contamination of the control group by exposure to D.A.R.E.® or to other drug use prevention programs. Although none of the comparison groups in the methodologically rigorous D.A.R.E.® studies was exposed to D.A.R.E.® between pretest and immediate posttest, contamination was an issue for some studies conducting longer-term evaluations. This contributed to our inability to evaluate D.A.R.E.®'s effectiveness beyond immediate posttest. Ironically, contamination is particularly problematic for D.A.R.E.® evaluations because of the rapid dissemination of the program and because of the various curricula now prevalent for students at different grade levels. It is increasingly possible, for example, for a control group not receiving the D.A.R.E.® core curriculum to receive the junior high school curriculum, effectively reducing its utility as a control group.

A larger, but more subtle comparison group problem is that the prevalence of school-based drug use prevention programs in general makes it virtually impossible to find a true "no treatment" control group. Hence, when comparing D.A.R.E.® to another drug education program, effectiveness is determined on a comparative rather than an absolute basis. For example, a finding of little difference in effectiveness may indicate that both programs are effective rather than that D.A.R.E.® is of limited effectiveness or both programs are ineffective. None of the studies we reviewed indicated whether the control group received any drug use prevention programming, much less provided information about it. Future studies should describe any prevention interventions being delivered to the comparison group and discuss the implications for the results.[3]

An increasingly recognized methodological concern in the evaluation of school-based interventions is the importance of following an analysis strategy that is appropriate to the study design (Moskowitz, 1993; Murray & Hannan, 1990). Only two of the methodologically rigorous studies addressed this issue in the statistical analyses. When D.A.R.E.® is assigned by schools, which is usually the case, or by classrooms rather than by individuals, the analysis strategy must take into account the correlations among students in the same school or classroom. This requires performing analyses at the aggregate level (e.g., through comparison of school or classroom means) or by statistically correcting for within-school or within-classroom correlations. Analyses that do not account for the correlations among subjects tend to underestimate the variability in outcomes across schools and therefore overstate the statistical significance of treatment effects (i.e., the difference between the D.A.R.E.® and control schools). Because statistical significance is often used as an indicator of effectiveness, this can artificially inflate the effects and thus unfairly bias interpretation of the results.

Related to this issue is the need for sufficiently large samples to provide adequate statistical power for detecting significant differences between D.A.R.E.® and comparison groups. Most of the D.A.R.E.® studies reviewed had large numbers of students. However, because the sample of interest, as described above, usually revolves around schools as opposed to students, it is important that sample size determinations in future studies be based on analysis of the number of schools needed in treatment and control conditions.

The final methodological issue raised by our review of studies concerns the careful control and analysis of study attrition. Attrition can affect both the external and internal validity of the study. Attrition rates were usually reported in the D.A.R.E.® studies selected for review. However, data on demographic and pretest differences in drug use and other predictor measures between those who remained in and those who dropped out of the study were less frequently reported. Attrition analyses can reveal whether subjects who were lost to follow-up disproportionately represent drug users or those at risk of drug use. When this is the case, it compromises the external validity of the study by limiting the population to which the study results may be generalized. When differential attrition occurs by experimental condition, for example, such that a larger proportion of drug users is lost from the intervention than the control group, the internal validity of the study is undermined. That is, the extent to which either positive or negative outcomes can be attributed to the intervention is limited.

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[3] Preliminary findings from a longitudinal study of D.A.R.E.® in Illinois conducted by Rosenthal et al. (1993) suggest that exposure to other drug use prevention programs is high.

We recommend that all future D.A.R.E.® evaluations not only meet, but also exceed each of the methodological criteria used for our review by addressing these methodological issues. Specifically, in addition to meeting the criteria used for this review, we recommend that studies report sample demographics, draw a sample with sufficient statistical power to detect differences in outcomes, use an analysis strategy appropriate to the way D.A.R.E.® is assigned, minimize attrition, and analyze differential attrition across treatment groups. In addition, we strongly recommend the use of an experimental research design, in which schools are randomly assigned to either D.A.R.E.® or control conditions. It is probably insufficient to assign classrooms at random within schools, because the activities of D.A.R.E.® officers outside the classroom may affect (or "contaminate") other classes. Although there frequently are difficulties inherent in using an experimental design, results from experimental studies always will be subject to fewer questions about validity than those of quasi-experimental studies. A small set of the D.A.R.E.® evaluations studies we reviewed used an experimental study design and incorporated other methodological features into the design. This level of rigor is needed if future D.A.R.E.® evaluation research is to contribute further to knowledge about D.A.R.E.®'s effectiveness.

What overall assessment of D.A.R.E.® do the study findings suggest?

As described in Chapter 7, we used meta-analytic techniques to synthesize and assess the findings of eight methodologically rigorous studies of the original D.A.R.E.® core curriculum. Our approach required calculating individual study effect sizes for drug use and other outcomes targeted by the core curriculum and then averaging effect sizes across studies. Effect sizes facilitate comparing and summarizing results across studies because they transform the results of the studies, which may have been derived from a wide variety of statistical tests, to a common metric. Hence, in terms of statistical output, the results of one study are comparable with those of another study. Furthermore, effect sizes are a more useful indicator of effectiveness than comparing whether results are statistically significant from one study to another. This is because statistical significance can be influenced by such factors as sample size and analysis strategy, making comparisons problematic.

The magnitude of the effect sizes, when considered both within each study and averaged across studies, indicated that D.A.R.E.® was most effective at immediate posttest in increasing knowledge about drug use and in enhancing social skills. The average effect sizes reported for these outcomes were statistically significant and larger than for other outcomes. It is consistent with other meta-analyses for the largest effect sizes to be associated with knowledge change, supporting the general observation that knowledge is more amenable to change than attitudes or behavior. Averaged across studies, D.A.R.E.® also had statistically significant effects on attitudes about drugs, attitude toward the police, and self-esteem. The effect sizes were smaller, however, than for knowledge and social skills, indicating fewer meaningful changes in these areas.

The smallest immediate effect sizes were for drug use (alcohol, tobacco, and marijuana separately and averaged together), and except for tobacco use, none was statistically significant. In interpreting the small magnitude of D.A.R.E.®'s effectiveness with respect to drug use behavior, it is important to note that the immediate effect sizes may reflect, at least in part, the relatively low frequency of drug use by the elementary school pupils targeted by the original core curriculum. The effect sizes probably also reflect the short time interval from pretest to immediate posttest for behavior change to occur. D.A.R.E.® was more effective at influencing factors believed to mediate drug use. It is most noteworthy that D.A.R.E.® had positive effects on social skills because it is widely believed that children with greater social competencies are more able to resist social pressures to use drugs. Long-term impact of D.A.R.E.®, therefore, may result from D.A.R.E.®'s immediate impact on social skills. As described earlier, few longer-term longitudinal studies have been conducted, and some have been compromised by contamination of the control group. However, based on two experimental studies for which reliable information 1 and 2 years after implementation is available, there is no evidence that D.A.R.E.®'s effects are activated when subjects are older (Clayton et al., 1991b; Ennett et al., 1994). Most long-term evaluations of drug use prevention programs have shown that curriculum effects decay rather than appear or increase with time (Ellickson et al., 1993; Murray et al., 1989).

Future D.A.R.E.® evaluation studies should continue to assess drug use, attitudes about drug use, social skills, and attitude toward police. Drug use indicators should include tobacco (cigarettes and smokeless tobacco), alcohol (particularly beer, wine, and wine coolers), and marijuana. In addition, use of inhalants and any other drugs that are locally prevalent should be monitored. It is also important to continue to measure outcomes targeted by the D.A.R.E.® curriculum, such as social skills, that are believed to indirectly influence drug use. This requires linking outcome measures to specific objectives addressed by the various lessons of the curriculum. These data are needed for measuring a variety of potentially important program effects other than drug use behavior, and for testing assumptions about the means by which the D.A.R.E.® curriculum influences drug use.

For maximal usefulness, we further recommend that effect sizes be routinely reported with the study results to facilitate comparison both to the results of this meta-analysis and those of future studies. As demonstrated by this meta-analysis, effect sizes can be readily calculated from a variety of statistical tests, so this should not place an undue burden on researchers.

When the results of future D.A.R.E.® evaluation studies become available, they should be carefully studied and compared with the results of the studies reviewed here. As we recommended earlier, the D.A.R.E.® America RTC Advisory Board could coordinate periodic reviews of the evaluations. It is likely that ongoing review of evaluation results will suggest areas where the curriculum might need modification.

How well does D.A.R.E.® address drug involvement by youth in general?

The effect sizes discussed above indicate the extent to which the original D.A.R.E. core curriculum influenced drug use by youth and other outcomes at immediate posttest. To put the D.A.R.E.® results in context, we compared D.A.R.E.®'s effectiveness with that of other school-based drug use prevention programs to determine whether D.A.R.E.® had greater, smaller, or similar effects. Hence, we compared the average D.A.R.E.® effect sizes for drug use, knowledge, attitudes, and skills to average effect sizes calculated for other methodologically strong school-based drug use prevention programs. We restricted the comparison programs to those for upper elementary school pupils to make the comparisons most meaningful.

We compared D.A.R.E.® to two broad categories of prevention programs, namely "interactive" and "noninteractive" programs (Tobler, in press, 1994). These two program categories cover most types of current school-based prevention efforts described in Chapter 2. Interactive programs generally are the same as the social competence programs described in that chapter. These programs represent the most recent advances in drug use prevention strategies, and emphasize social competencies and interactive teaching methods. Noninteractive programs generally include knowledge and affective programs, also described in Chapter 2. These programs represent earlier approaches to drug education that emphasize changing knowledge and attitudes about drug use through more traditional learning styles. Interestingly, D.A.R.E.® shares similarities with both noninteractive and interactive programs. The original core curriculum was developed when prevention efforts were in transition between noninteractive programs (knowledge and affective education programs) and the emergence of interactive programs (these emphasizing social influence).

Average D.A.R.E.® immediate effect sizes were greater, except for drug use, than the comparable average effect sizes for noninteractive programs. The D.A.R.E.® effect sizes were smaller, however, than the effect sizes for interactive programs. For drug use, the average effect size for interactive programs was three times greater than the average D.A.R.E.® effect size; for social skills, four times greater than for D.A.R.E.®; and for attitudes, three times greater.

Interactive programs have been shown to be the most promising drug use prevention programs; noninteractive programs generally have been shown to be less effective (Botvin, 1990; Bruvold, 1993; Bruvold & Rundall, 1988; Tobler, 1986, in press, 1994). Because D.A.R.E.® shares features of both interactive and noninteractive programs, it is perhaps not surprising that the effect sizes we reported should fall somewhere between.

In Chapter 7, we described several methodological reasons that could help account for the differences in effect sizes between the D.A.R.E.® studies and the interactive comparison programs. These included the possibility that the control groups in the D.A.R.E.® studies were exposed to some sort of alternative drug education programs, whereas the control groups for the various interactive studies were not. Another possibility is that because the interactive programs were primarily university research-based evaluation studies, the evaluations--and programs themselves--may have been more stringently implemented and more closely monitored. Under these conditions, greater effectiveness might be expected than in real-world conditions, such as those surrounding D.A.R.E.® Other possibilities include factors that may have varied across the intervention programs and associated evaluation studies that contributed to the observed differences in effect sizes. For example, substantial variation in characteristics of the studients (e.g., in race/ethnicity), features of the interventions (e.g., variations in program intensity), and features of the research design (e.g., experimental versus quasi-experimental design) could have contributed to differences in program effects. Such possibilities could not be tested because of the small number of studies. Further testing is warranted when larger samples of D.A.R.E.® and comparison studies are available.

It is also important to consider substantive reasons that could account for the differences. Possible explanations include the content of the original core curriculum, the use of law enforcement officers as instructors, and the more didactic approach of the instruction. Consideration of each of these explanations suggests areas for future research and possibly for programmatic change.

As we have indicated, D.A.R.E.®'s curriculum content has similarities with both noninteractive and interactive programs, although it has more of an intrapersonal focus than most interactive programs and, conversely, more of a skills focus than most noninteractive programs. Perhaps greater emphasis in the D.A.R.E.® core curriculum on social influences, and less emphasis on affective factors, might result in effect sizes nearer to those reported from interactive programs. However, it is difficult to speculate on the effect of altering the D.A.R.E.® curriculum by adding or subtracting particular lessons. Most evaluations of school-based prevention programs have assessed the effectiveness of overall programs rather than of the various program components or combinations of components. Future research in this area might suggest particular curriculum changes.

D.A.R.E.® instruction offers another possible area of explanation for D.A.R.E.®'s relatively poorer performance compared with interactive programs. Although instruction by police officers is the sine qua non of the D.A.R.E.® curriculum, their effectiveness may be less than other possible program providers. For example, despite the extensive D.A.R.E.® training received by law enforcement officers, they may not be as well equipped to lead the curriculum as classroom teachers are. No studies have been reported in which the D.A.R.E.® curriculum was offered by anyone other than a police officer; examination of the results from such a study might suggest whether police officers are as effective as other possible instructors.

Regardless of the leader, however, the generally more traditional teaching style used by D.A.R.E.® has not been shown to be as effective as an interactive teaching mode (Tobler, 1986, in press, 1994). Traditional didactic approaches that involve teachers delivering information, with little response from students, are increasingly recognized as undesirable. More effective are strategies that engage students in a dialogue with the teacher; more effective still are cooperative or participatory learning approaches in which the teacher serves as a facilitator or catalyst to generate discussions and other interactions among students. Although some D.A.R.E.® activities encourage pupil interaction, the original core curriculum relies heavily on the officer as expert and makes frequent use of lectures and question-answer sessions between the officer and pupils. In fact, it is in teaching style, not curriculum content, that D.A.R.E.® differs most from the interactive programs examined by Tobler. In the revised D.A.R.E.® core curriculum, there is greater emphasis on such cooperative learning experiences. We recommend that the D.A.R.E.® training programs urge officers to employ more interactive methods and provide specific guidance on how they can do so.

What are the intended and unintended consequences of D.A.R.E.®'s approach to drug abuse prevention?

None of the studies we reviewed examined consequences of the D.A.R.E.® program, either intended or unintended, other than those related directly to the curriculum. However, a number of consequences can be envisioned. These include effects related to other behaviors than drug use (e.g., effects on violent and delinquent behavior). More likely, perhaps, may be consequences related to the relationship that develops between the D.A.R.E.® officers and students, which may in turn have positive consequences for police and community relations in general. Research indicates that the effects on police officers through their exposure to students and the problems they face may also be substantial and beneficial (D.A.R.E.® Southeast Regional Training Center, 1992). It is possible, in fact, that some of D.A.R.E.®'s most important effects are related to the relations between students and police officers. The studies we reviewed provided little insight into these areas. This suggests the importance of research to explore other consequences related to D.A.R.E.®'s approach to drug use prevention.

Conclusion

As might be expected of an institution as large as D.A.R.E.®, our implementation and outcome assessments present an array of findings and raise a number of issues deserving of consideration by the D.A.R.E.® organization and all those concerned with this program. Perhaps most prominently, the findings show a program that has been extremely successful at placing drug education in our Nation's schools. Indeed, D.A.R.E.® is now implemented in the majority of school districts in the country and is expected to grow substantially in coming years. At the same time, however, as our findings confirm D.A.R.E.®'s prevalence and popularity, they also suggest that the original D.A.R.E. core curriculum has not been as successful in accomplishing its mission to prevent drug use among fifth and sixth graders as have interactive programs. Review of the rigorous evaluations of the original core curriculum, the heart of D.A.R.E.®, showed that D.A.R.E.® had only limited immediate effects on students' drug use. Although the curriculum was more successful in influencing other outcomes, such as social skills, more work is needed to make D.A.R.E.® more effective as a drug use prevention program.

Given D.A.R.E.®'s strengths, the task of increasing the effectiveness of the core curriculum is feasible. D.A.R.E.® has achieved its accomplishments to date through building a complex and solid organizational structure that reaches from local to national levels, by forging close partnerships between education and law enforcement, and by winning substantial community support for the program. In no other program of this magnitude have school districts welcomed into the classroom outsiders who lack traditional educational credentials to replace teachers as instructors of a major curriculum. These resources, as well as the dedication of the D.A.R.E.® officers in the classroom, should enable D.A.R.E.® to move forward more effectively to meet the challenges of drug use prevention. In this final section of our assessment, we briefly recapitulate our major findings and recommendations.

D.A.R.E.®'s prevalence. D.A.R.E.® is now implemented in over half the school districts in the country and is expected to grow substantially in the coming years. Because it is least prevalent in small and rural school districts, we believe that ways for these school districts to increase access to D.A.R.E.® should be examined.

D.A.R.E.®'s organization. D.A.R.E.® is at once both hierarchical and community-based. Although it is carefully controlled, monitored, and overseen at the national, regional, and State levels, it is also very much a grass-roots movement, dependent on local initiatives to form partnerships and secure support. At the State level and above, we suggest that sufficient resources be made available to support this burgeoning organization to ensure adequate authority, communication, technical assistance, and oversight. At the local level, we believe that alternative sources of support should be explored so that D.A.R.E.® can be freed as much as possible from dependence on public funds.

D.A.R.E.®'s partnership with education. Law enforcement's relationship with education is the cornerstone of D.A.R.E.® We believe that at all levels a variety of mechanisms could be instituted to strengthen this critical partnership. This includes improving methods for co-teaching D.A.R.E.® at the local level, as well as increasing where possible the already multifaceted involvement of D.A.R.E.® officers in school life. We also suggest ensuring adequate representation on advisory boards by staff of departments of education at the State and national levels.

Popular support for D.A.R.E.® Anecdotal evidence of grass-roots support for D.A.R.E.® is abundant and is fully confirmed in our study. School-based drug prevention coordinators tended to rate school staff's attitudes toward D.A.R.E.® as well as those of students, the parents, and the community as very supportive. The D.A.R.E.® curriculum and students' receptivity to the program, and perhaps most important, D.A.R.E.®'s effects on students were rated as very satisfactory. This persuasive evidence suggests that whatever modifications and enhancements may be made to the D.A.R.E.® curriculum and how the program is taught, D.A.R.E.®'s organization and structure at the local level is sound and should be preserved.

The original D.A.R.E.® core curricula. Drug prevention coordinators' endorsements of D.A.R.E.®'s positive effects on students are generally not supported by the results of the methodologically sound short-term evaluations of the original D.A.R.E.® core curriculum we summarized. As indicated earlier, D.A.R.E.® demonstrated somewhat greater effects than those of didactic school-based drug prevention methods that are based on affective approaches, but considerably fewer effects than those of interactive methods that use social influence approaches.

Because D.A.R.E.® already incorporates many interactive features, we believe that appropriate modifications can be made both to the core curriculum and to the way D.A.R.E.® is taught that are well within the context of the institution as a whole. These modifications should be made periodically (perhaps every 2 years), as refinements are suggested by evaluations of drug prevention programs in general, and of D.A.R.E.® in particular. We commend D.A.R.E.® for convening a Scientific Advisory Committee that comprises drug prevention specialists who will review relevant drug prevention research findings and make recommendations concerning improvements to the curricula.

In conclusion, D.A.R.E.® represents an institution that is unique in the area of drug use prevention: a partnership between law enforcement and education that has the substantial support of children, parents, and the community at large. Not unexpectedly, along with this highly visible profile come high expectations. Our report demonstrates D.A.R.E.®'s success in meeting many of these expectations, as well as challenges that lie ahead. Key to the continued growth of D.A.R.E.® will be careful monitoring of the effectiveness of the various curricula, coupled with the willingness to make and assess modifications that could enhance effectiveness. D.A.R.E.® has already demonstrated its responsiveness to change by the introduction of new curricula, revisions to the core curriculum, and expanded roles for D.A.R.E.® officers. Equally important to D.A.R.E.®'s viability will be its continued coordination of the roles and responsibilities of the many D.A.R.E.® players. In both of these efforts, we recommend that D.A.R.E.® seek to strengthen its partnerships with individuals and institutions outside its bounds. The advice, support, and perspectives of those who are not part of the D.A.R.E.® structure but who are equally committed to drug use prevention will enhance the vitality and integrity of the program. We believe these efforts will result in a program that maintains its unique identity and place in drug education, while meeting more effectively the challenge of reducing drug use among youth.

REFERENCES

Aniskiewicz, R.E., & Wysong, E.E. (1987). Project D.A.R.E. evaluation report: Kokomo schools, spring, 1987. Unpublished report. Kokomo, IA: Indiana University.

Aniskiewicz, R., & Wysong, E. (1990). Evaluating D.A.R.E.: Drug education and the multiple meanings of success. Policy Studies Review, 9, 727-747.

Anonymous. (1987). Project D.A.R.E. evaluation, spring, 1987. Unpublished paper. Pittsburgh, PA.

Bangert-Drowns, R.L. (1986). Review of developments in meta-analytic method. Psychological Bulletin, 99, 388-399.

Bangert-Drowns, R.L. (1988). The effects of school-based substance abuse education: A meta-analysis. Journal of Drug Education, 18, 243-264.

Bauman, K.E., & Dent, C.W. (1982). Influence of an objective measure on the self-reports of behavior. Journal of Applied Psychology, 67, 623-628.

Becker, H.R., Agopian, M.W., & Yeh, S. (1992). Impact evaluation of Drug Abuse Resistance Education (D.A.R.E.). Journal of Drug Education, 22, 283-291.

Biglan, A., & Ary, D.V. (1985). Methodological issues in research on smoking prevention. In: C.S. Bell & R. Battjes (Eds.), Prevention research: Deterring drug abuse among children and adolescents (pp. 170-195). Rockville, MD: National Institute on Drug Abuse.

Botvin, G.J. (1990). Substance abuse prevention: Theory, practice, and effectiveness. In M. Tonry & J.Q. Wilson (Eds.), Drugs and crime (pp. 461-519). Chicago: The University of Chicago Press.

Bruvold, W.H. (1993). A meta-analysis of adolescent smoking prevention programs. American Journal of Public Health, 83, 872-880.

Bruvold, W.H., & Rundall, T.G. (1988). A meta-analysis and theoretical review of school based tobacco and alcohol intervention programs. Psychological Health, 2, 53-78.

Bureau of Justice Assistance. (1988). Implementing Project D.A.R.E.: Drug Abuse Resistance Education. Washington, DC: Author.

Bureau of Justice Assistance. (1991a). An introduction to D.A.R.E.: Drug Abuse Resistance Education (BJA Program Brief, NCJ 129862). Washington, DC: Author.

Bureau of Justice Assistance. (1991b). Drug Abuse Resistance Education (D.A.R.E.®) training center policies and procedures. Washington, DC: Author.

Clayton, R.R., Cattarello, A., Day, L.E., & Walden, K.P. (1991a). Persuasive communication and drug prevention: An evaluation of the D.A.R.E. program. In L. Donoher, H. Sypher, & W. Bukoski (Eds.), Persuasive communication and drug abuse prevention (pp. 295-313). Hillsdale, NJ: Lawrence Erlbaum Associates.

Clayton, R.R., Cattarello, A., & Walden, P. (1991b). Sensation seeking as a potential mediating variable for school-based prevention intervention: A two-year follow-up of D.A.R.E. Health Communication, 3, 229-239.

Cook, D.J., Guyatt, G.H., Ryan, G., Clifton, J., Willas, A., McIlroy, W., & Oxman, A.D. (1993). Should unpublished data be included in meta-analyses? Journal of the American Medical Association, 269, 2749-2753.

D.A.R.E.® Southeast Regional Training Center. (1992). An Investigation of DARE Officer and DARE Mentor Behavioral Change: Final report. Raleigh, NC: Author.

DeJong, W. (1987). A short-term evaluation of Project D.A.R.E. (Drug Abuse Resistance Education): Preliminary indicators of effectiveness. Journal of Drug Education, 17, 279-294.

Dukes, R., & Matthews, S. (1991). Evaluation of the Colorado Springs citywide D.A.R.E. program: Interim report. Unpublished report. Colorado Springs, CO: University of Colorado, Center for Social Science Research.

Earle, R.B., Garner, J., & Phillips, N. (1987). Evaluation of the Illinois state police pilot D.A.R.E. program. Unpublished report. Springfield, IL: A.H. Training and Development Systems, Inc.

Ellickson, P.L., Bell, R.M., & McGuigan, K. (1993). Preventing adolescent drug use: long-term results of a junior high school program. American Journal of Public Health, 83, 856-861.

Ellickson, P.L., Hays, R.D., & Bell, R.M. (1992). Stepping through the drug use sequence: Longitudinal scalogram analysis of initiation and regular use. Journal of Abnormal Psychology, 101, 441-451.

Ennett, S.T., Rosenbaum, D.P., Flewelling, R.L., Bieler, G.S., Ringwalt, C.R., & Bailey, S.L. (1994). Long-term evaluation of Drug Abuse Resistance Education. Addictive Behaviors, 19, 113-125.

Evaluation and Training Institute. (1990). D.A.R.E. evaluation report for 1985-1989. Unpublished report. Los Angeles, CA: Author.

Faine, J.R., & Bohlander, E. (1988). Drug Abuse Resistance Education: An assessment of the 1987-88 Kentucky state police D.A.R.E. program. Unpublished report. Bowling Green, KY: Western Kentucky University, Social Research Laboratory.

Faine, J.R., & Bohlander, E. (1989). D.A.R.E. in Kentucky schools 1988-89. Unpublished report. Bowling Green, KY: Western Kentucky University, Social Research Laboratory.

Flay, B.R. (1985). Psychosocial approaches to smoking prevention: A review of findings. Health Psychology, 4, 449-488.

Glass, G., McGaw, B., & Smith, M. (1981). Meta-analysis in social research. Beverly Hills, CA: Sage Publications.

Hansen, W.B. (1992). School-based substance abuse prevention: A review of the state of the art in curriculum, 1980-1990. Health Education Research, 7, 403-430.

Hansen, W.B., Johnson, C., Flay, B., Graham, J., & Sobel, J. (1988). Affective and Social Influences approaches to the prevention of multiple substance use among seventh grade students: Results from project Smart. Preventive Medicine, 17, 135-144.

Harmon, M.A. (1993). Reducing the risk of drug involvement among early adolescents. An evaluation of Drug Abuse Resistance Education (D.A.R.E.). Evaluation Review, 17, 221-239.

Hedges, L.V., & Olkin, I. (1985). Statistical methods for meta-analysis. New York: Academic Press.

Kandel, D. (1975). Stages in adolescent involvement in drug use. Science, 190, 912-914.

Kethineni, S., Leamy, D.A., & Guyon, L. (1991). Evaluation of the Drug Abuse Resistance Education program in Illinois: Preliminary report. Unpublished report. Normal, IL: Illinois State University, Department of Criminal Justice Sciences.

Manos, M.J., Kameoka, K.Y., & Tanji, J.H. (1986). Evaluation of Honolulu police department's Drug Abuse Resistance Education program. Unpublished report.

Honolulu, HI: University of Hawaii-Manoa, School of Social Work, Youth Development and Research Center.

McCormick, F.C., & McCormick, E.R. (1992). An evaluation of the third year drug abuse resistance education (D.A.R.E.) program in Saint Paul. Unpublished report. Saint Paul, MN: Educational Operations Concepts, Inc.

McDonald, R.M., Towberman, D.B., & Hague, J.L. (1990). Volume II: 1989 impact assessment of Drug Abuse Resistance Education in the Commonwealth of Virginia. Unpublished report. Richmond, VA: Virginia Commonwealth University, Institute for Research in Justice and Risk Administration.

McDonald, R.M., Towberman, D.B., & Hague, J.L. (1991). Volume III: 1990 Assessment of Drug Abuse Resistance Education in the Commonwealth of Virginia. Unpublished report. Richmond, VA: Virginia Commonwealth University, Institute for Research in Justice and Risk Administration.

Moskowitz, J. (1989). The primary prevention of alcohol problems: A critical review of the research literature. Journal of Studies on Alcohol, 50, 54-88.

Moskowitz, J.M. (1993). Why reports of outcome evaluations are often biased or uninterpretable. Evaluation and Program Planning, 16, 1-9.

Moskowitz, J., Malvin, J., Schaeffer, G., & Schaps, E. (1983). Evaluation of a junior high school primary prevention program. Addictive Behaviors, 8, 393-401.

Murray, D.M., & Hannan, P.J. (1990). Planning for the appropriate analysis in school-based drug use prevention studies. (1990). Journal of Consulting and Clinical Psychology, 58, 458-468.

Murray, D.M., Pirie, P., Luepker, R.V., & Pallonen, U. (1989). Five- and six-year follow-up results from four seventh-grade smoking prevention strategies. Journal of Behavioral Medicine, 12, 207-218.

Nyre, G.F., & Rose, C. (1987). Drug Abuse Resistance Education (D.A.R.E.) longitudinal evaluation annual report, January 1987. Unpublished report. Los Angeles, CA: Evaluation and Training Institute.

Nyre, G.F., Rose, C., & Bolus, R.E. (1987). Drug Abuse Resistance Education (D.A.R.E.) longitudinal evaluation annual report, August, 1987. Unpublished report. Los Angeles, CA: Evaluation and Training Institute.

Oetting, E.R., & Bauvais, F. (1990). Adolescent drug use: Findings of national and local surveys. Journal of Consulting and Clinical Psychology, 58, 385-394.

Pentz, M.A., & Trebow, E. (1988). Implementation issues in drug abuse prevention research: In C. Leukefeld, & W. Bukoski (Eds.), Drug prevention intervention research methodological issues. Rockville, MD: National Institute on Drug Abuse.

Perry, P.D., & Tobler, N.S. (1992). Manual for effect size calculation: Formula used in the meta-analysis of adolescent drug prevention programs (Appendix 3, Meta-Analysis of Adolescent Drug Prevention Programs: Final Report). Rockville, MD: National Institute on Drug Abuse.

Ringwalt, C., Curtin, T.R., & Rosenbaum, D.P. (1990). A first-year evaluation of D.A.R.E. in Illinois. Unpublished report. Research Triangle Park, NC: Research Triangle Institute.

Ringwalt, C., Ennett, S.T., & Holt, K.D. (1991). An outcome evaluation of project D.A.R.E. (Drug Abuse Resistance Education). Health Education Research: Theory and Practice, 6, 327-337.

Rosenbaum, D.P., Ringwalt, C., Curtin, R.T., Wilkinson, D., Davis, B., & Taranowski. (1991). Second year evaluation of D.A.R.E. in Illinois. Unpublished report. Chicago, IL: University of Illinois, Center for Research in Law and Justice.

Rosenbaum, D.P., Flewelling, R.L., Bailey, S.L., Faggiani, D., & Ringwalt, C. (1992). Third year evaluation of D.A.R.E. in Illinois. Unpublished report. Chicago, IL: University of Illinois, Center for Research in Law and Justice.

Rosenthal, R. (1991). Meta-analytic procedures for social research. Applied Social Research Methods Series. Vol 6). Newbury Park, CA: Sage Publications.

Rundall, T.G. & Bruvold, W.H. (1988). Meta-analysis of school-based smoking and alsochol use prevention programs. Health Education Quarterly, 15, 317-334.

Thorne, J.M., Holley, J.A., Wine, J., Hayward, B.J., & Ringwalt, C.L. (1991). A study of the Drug-Free Schools and Communities Act: Report on State and local programs (U.S. Department of Education Contract LC88028001). Research Triangle Park, NC: Research Triangle Institute.

Tobler, N.S. (1986). Meta-analysis of 143 adolescent drug prevention programs: Quantitative outcome results of program participants compared to a control or comparison group. Journal of Drug Issues, 16, 537-567.

Tobler, N.S. (1994). Meta-analysis of adolescent drug prevention programs. Unpublished Ph.D. dissertation, State University of New York at Albany.

Tobler, N.S. (in press). Meta-analytic issues for prevention intervention research. In L. Seitz & L. Collins (Eds.), Advances in data analysis for prevention intervention research. Rockville, MD: National Institute on Drug Abuse.

University of Michigan. (1994, January 31). Drug use rises among American teen-agers, as fewer see dangers and as peer norms begin to change. Cigarette smoking among teens also begins to increase [press release on Monitoring the Future Study]. Ann Arbor, MI: University of Michigan, News and Information Service.

Walker, S. (1990). The Victoria police department Drug Abuse Resistance Education programme (D.A.R.E.) programme evaluation report #2 (1990). Unpublished report. Victoria, BC: The Ministry of the Solicitor-General, Federal Government of Canada.

APPENDIX A

SAMPLING FOR SCHOOL DISTRICT DRUG PREVENTION COORDINATORS SURVEY

Exhibit A.1 Number of School Districts in Sampling Frame, by Region, Urbanicity, SES, Minority Status, and District Size

Stratification Variables	N	%
Minority Status		
High	4,023	27.3
Low	10,692	72.7
	14,715	100.0
SES		
High	10,794	73.4
Low	3,921	26.6
	14,715	100.0
Urbanicity		
Urban/suburban	5,226	35.5
Rural	9,489	64.5
	14,715	100.0
District size		
Small	7,347	49.9
Large	7,368	50.1
	14,715	100.0
Region		
East	3,152	21.4
Southeast	963	6.5
Midwest	4,759	32.4
Southwest	3,419	23.2
West	2,422	16.5
	14,715	100.0

Exhibit A.2 Number of School Districts in Each Stratum for the Sampling Frame

			Region									
			East		Southeast		Midwest		Southwest		West	
SES	Minority Status	District Size	Urban/ Suburban	Rural	Urban/ Suburban	Rural	Urban/ Suburban	Rural	Urban/ Suburban	Rural	Urban/ Suburban	Rural
High	High	Small	90	95	6	20	117	154	14	105	27	80
		Large	119	248	10	33	172	422	50	279	56	246
	Low	Small	509	438	63	229	479	858	276	817	281	419
		Large	473	333	73	277	464	781	240	742	292	407
Low	High	Small	75	22	21	92	63	94	42	98	60	39
		Large	157	90	21	45	160	169	92	191	77	72
	Low	Small	152	194	15	35	191	422	56	298	70	231
		Large	78	79	2	21	55	158	11	108	17	48

Exhibit A.3 First-Phase Sample Allocation by Region, Urbanicity, SES, Minority Status, and District Size

Stratification Variables	N	%
Minority Status		
High	410	27.3
Low	1,090	72.7
	1,500	100.0
SES		
High	1,101	73.4
Low	399	26.6
	1,500	100.0
Urbanicity		
Urban/suburban	534	35.6
Rural	966	64.4
	1,500	100.0
District Size		
Small	750	50.0
Large	750	50.0
	1,500	100.0
Region		
East	321	21.4
Southeast	100	6.7
Midwest	485	32.3
Southwest	346	23.1
West	248	16.5
	1,500	100.0

Exhibit A.4 First-Phase Sample Allocation, by Each Stratum

			Region									
			East		Southeast		Midwest		Southwest		West	
SES	Minority Status	District Size	Urban/ Suburban	Rural	Urban/ Suburban	Rural	Urban/ Suburban	Rural	Urban/ Suburban	Rural	Urban/ Suburban	Rural
High	High	Small	9	10	2	2	12	16	2	11	3	8
		Large	12	25	2	3	18	43	5	28	6	25
	Low	Small	52	45	6	23	49	87	27	83	29	43
		Large	48	34	7	28	47	80	24	76	30	41
Low	High	Small	8	2	2	9	6	10	4	10	6	4
		Large	16	9	2	5	16	17	8	19	8	7
	Low	Small	15	20	2	4	19	43	6	30	7	24
		Large	8	8	1	2	6	16	2	11	2	5

Exhibit A.5 First-Phase Sample, by Region and D.A.R.E.® Status[1]

	East		Southeast		Midwest		Southwest		West		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
D.A.R.E.®	180	56.0	46	51.7	182	37.5	124	35.3	114	44.9	646	43.0
No D.A.R.E.®	138	43.0	43	48.3	174	35.9	144	41.0	95	37.4	594	40.0
Unknown D.A.R.E.® Status	3	1.0	0	0.0	129	26.6	83	23.7	45	17.7	260	17.0
Total	321	100.0	89	100.0	485	100.0	351	100.0	254	100.0	1500	100.0

[1] Based on data provided by State D.A.R.E.® coordinators.

Exhibit A.6 Second-Phase Sample Allocation, by Region and D.A.R.E.® Status[1]

	East		Southeast		Midwest		Southwest		West		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
D.A.R.E.®	60	56.0	15	50.0	61	37.7	41	35.3	38	44.7	215	43.0
No D.A.R.E.®	46	43.0	15	50.0	59	36.4	48	41.4	32	37.6	200	40.0
Unknow D.A.R.E.® Status	1	1.0	0	0.0	42	25.9	27	23.8	15	17.7	85	17.0
Total	107	100.0	30	100.0	162	100.0	116	100.0	85	100.0	500	100.0

[1] Based on data provided by State D.A.R.E.® coordinators.

APPENDIX B

INDIVIDUAL STUDY DESCRIPTIONS

Appendix B
Individual Study Descriptions

Brief descriptions of the eight methodologically rigorous studies selected for the meta-analysis are given below in alphabetical order by the location of the study. The research design, sample size and characteristics, and results for drug use knowledge, attitudes about drug use, social skills, self-esteem, attitude toward police, and drug use behavior are reported. Additional information and greater detail about the study methodologies and results are available in the reports or papers issued by each study.

1. British Columbia

The British Columbia evaluation of D.A.R.E.® (Walker, 1990) used a quasi-experimental design in which seven schools were assigned to receive D.A.R.E.® and four schools with similar demographic characteristics were selected for the comparison condition. The study administered an anonymous pretest and immediate posttest; assessed pretest equivalence on some demographic variables and all outcome variables; and controlled for pretest values on outcome variables by analyzing change scores at the aggregate level. The sample included 463 fifth-, sixth-, and seventh-grade pupils. No information was given on the ethnic composition of the sample.

The results showed that D.A.R.E.® had a statistically significant effect on subjects' knowledge about drugs. D.A.R.E.® did not have a statistically significant effect on attitudes about drug use or on drug use behavior (use of tobacco, beer, pop, marijuana, acid, valium, wine, aspirin, uppers, downers, heroin, crack, liquor, candy, glue, and PCP).

2. Hawaii

The Hawaii evaluation of D.A.R.E.® (Manos, Kameoka, & Tanji, 1986) used a quasi-experimental research design in which 23 schools were assigned to either D.A.R.E.® or comparison conditions. In three other schools, some classrooms were assigned to D.A.R.E.® and other classrooms to the comparison condition; data from these comparison classrooms were not included in our analysis. The study administered a pretest and immediate posttest; matched subjects from pretest to posttest; used some measures that were standardized scales or derived from existing measures; and controlled for pretest values on outcome variables. The sample included 2,009 fifth-grade pupils (not including the pupils in comparison classrooms in the D.A.R.E.® schools). No information was given on the ethnic composition of the sample. Attrition was not analyzed but was approximately 6%.

The results showed that D.A.R.E.® had a statistically significant effect in the desired direction on one social skills indicator (choices in a risk situation). D.A.R.E.® did not have statistically significant effects on another social skills indicator (assertiveness) or on subjects' attitudes about drug use.

3. Illinois-C

The Illinois-C evaluation of D.A.R.E.® (Ennett, Rosenbaum, Flewelling, Bieler, Ringwalt, & Bailey, 1994) used both an experimental and quasi-experimental design: 12 pairs of schools serving urban and suburban areas were randomly assigned to D.A.R.E.® and control conditions, while 6 pairs serving rural areas were assigned using a nonrandom procedure. The study matched schools on metropolitan status, ethnic composition, number of students with English proficiency, and percentage of pupils from low-income families; administered a pretest and three posttests (immediately, 1 year, and 2 years after implementation); matched subjects from pretest to posttest; used measures that were standardized scales or derived from existing measures; controlled for pretest values on outcome variables and initial nonequivalence between the comparison groups; adjusted for school effects with a nested cohort strategy; and assessed attrition. The sample included 1,323 subjects who were fifth and sixth graders at pretest; 54% were white, 22% were African American, 9% Hispanic, and 15% were American Indian, Asian American, or "other." The attrition rate over the three posttests was 26% and did not differ across experimental conditions.

The results showed that D.A.R.E.® had statistically significant effects in the desired direction on subjects' self-esteem, attitude toward police, and increased use of cigarettes at immediate posttest. D.A.R.E.® did not have statistically significant effects on subjects' attitudes about drugs (general attitude toward drugs, attitude toward use of specific drugs, perceived benefits of cigarette use and alcohol use; perceived costs of cigarette use and alcohol use; perceived media influence on smoking and beer drinking); social skills (assertiveness and peer refusal skills); or on other drug use behavior (initiation of alcohol, cigarettes, or heavy drinking; increased use of alcohol or heavy drinking; or quitting alcohol).

4. Kentucky-A

The Kentucky-A evaluation of D.A.R.E.® (Clayton, Cattarello, Day, & Walden, 1991a; Clayton, Cattarello, & Walden, 1991b) used an experimental design employing random assignment of 31 schools to either D.A.R.E.® or control conditions. The study administered a pretest and three posttests (immediately, 1 year, and 2 years after implementation); matched subjects from pretest to posttest; used measures that were standardized scales or derived from existing measures; controlled for pretest values on outcome variables and initial nonequivalence between the comparison groups; and assessed attrition. The sample included 1,925 subjects who were sixth graders at pretest; 76% were white and 21% were African American. The attrition rate over the three posttests was approximately 21% and did not differ across experimental conditions.

The results showed that, at immediate posttest, D.A.R.E.® had statistically significant effects in the desired direction on some indicators of subjects' attitudes about drugs (general attitudes about drugs and negative attitudes about alcohol, cigarettes, and marijuana). D.A.R.E.® did not have statistically significant effects at immediate posttest on other indicators of subjects' attitudes about drug use (positive attitudes about alcohol, cigarettes, and marijuana), social skills, self-esteem, or drug use behavior (use of alcohol, cigarettes, and marijuana).

5. Kentucky-B

The Kentucky-B evaluation of D.A.R.E.® (Faine & Bohlander 1988, 1989) used a quasi-experimental research design in which 16 schools, stratified by school type (rural, inner-city, suburban, and parochial), were randomly selected among schools assigned to receive D.A.R.E.® immediately or at a later semester (a delayed intervention comparison group). The study administered a pretest and two posttests (immediately and one year after implementation); matched subjects from pretest to posttest; used measures that were standardized scales or derived from existing measures; and controlled for pretest values on outcome variables and type of school. The sample in the first year included 783 fifth-grade pupils; sample demographic characteristics were not given. Attrition information was not given. By year 2, all the comparison groups had received the D.A.R.E.® program.

The immediate posttest results showed that D.A.R.E.® had statistically significant effects in the desired direction on subjects' knowledge about drugs, attitudes about drug use, social skills, self-esteem, and attitude toward police.

6. Minnesota

The Minnesota evaluation of D.A.R.E.® (McCormick & McCormick, 1992) used a quasi-experimental research design in which D.A.R.E.® was implemented by semester in 63 schools; random samples of D.A.R.E.® participants and pupils who would receive D.A.R.E.® in the next semester (a delayed intervention comparison group) were drawn. The study administered a pretest and immediate posttest; matched subjects from pretest to posttest; used measures that were standardized scales or derived from existing measures; assessed pretest equivalence on selected demographic variables; and controlled for pretest values on outcome variables. The sample included 943 fifth graders; 62% of the D.A.R.E.® group participants were white; 18% Asian Americans, 12% African American, and 7% Native American or Hispanic (demographic information on the comparison group was not given). The attrition rate was 9%.

The results showed that D.A.R.E.® had a statistically significant effect in the desired direction on subjects' knowledge about drugs. D.A.R.E.® did not have statistically significant effects on subjects' attitudes about drug use, social skills, self-esteem, or attitude toward police.

7. North Carolina

The North Carolina evaluation of D.A.R.E.® (Ringwalt, Ennett, & Holt, 1991) used an experimental research design employing random assignment of 20 schools to either D.A.R.E.® or control conditions. The study administered a pretest and immediate posttest; matched subjects from pretest to posttest; used measures that were standardized scales or derived from existing measures; controlled for pretest values on outcome variables and initial nonequivalence between the comparison groups; adjusted for school effects; and assessed attrition. The sample included 1,270 fifth- and sixth-grade students; 50% were African American, 40% were white, and 10% were American Indian, Asian American, or Hispanic. The attrition rate was 9% and did not differ across experimental conditions.

The results showed that D.A.R.E.® had statistically significant effects in the desired direction on subjects' attitudes about drugs (general attitude toward drugs, attitude toward use of specific drugs, perceived peer attitude toward drug use, perceived costs of using alcohol and cigarettes, and perceptions of the media portrayal of beer drinking and cigarette smoking) and social skills (assertiveness). D.A.R.E.® did not have statistically significant effects on subjects' drug use behavior (alcohol, cigarettes, or inhalant use).

8. South Carolina

The South Carolina evaluation of D.A.R.E.® (Harmon, 1993) used a quasi-experimental research design in which five schools were assigned to receive D.A.R.E.® and six schools matched on demographic characteristics were selected for the comparison condition. The study administered a pretest and immediate posttest; matched subjects from pretest to posttest; used measures that were standardized scales or derived from existing measures; controlled for pretest values on outcome variables and initial nonequivalence between the comparison groups; and assessed attrition. The sample included 602 fifth-grade pupils. The attrition rate was 13.5% in the D.A.R.E.® group and 16.3% in the comparison groups.

The results showed that D.A.R.E.® had statistically significant effects in the desired direction on subjects' attitudes about drugs, social skills (assertiveness), and initiation of alcohol use in the past year. D.A.R.E.® did not have statistically significant effects on subjects' self-esteem, attitude toward police, or other drug use behavior indicators (previous year tobacco and marijuana use, and previous month cigarette, alcohol, and marijuana use).

APPENDIX C

BIBLIOGRAPHY OF COMPARISON PROGRAM EVALUATIONS

Appendix C
Bibliography of Comparison Program Evaluations

Allison, K., Silver, G., & Dignam, C. (in press). Effects on students of teacher training in use of a drug education curriculum. Journal of Drug Education.

Dielman, T., Shope, J., Butchart, A., & Campanelli, P. (1986). Prevention of adolescent alcohol misuse: An elementary school program. Journal of Pediatric Psychology, 11, 259-281.

Dielman, T., Shope, J., Campanelli, P., & Butchart, A. (1987). Elementary school-based prevention of adolescent alcohol misuse. Pediatrician: International Journal of Child and Adolescent Health, 14, 70-76.

Dielman, T., Shope, J., Leech, S., & Butchart, A. (1989). Differential effectiveness of an elementary school-based alcohol misuse prevention program. Journal of School Health, 59, 255-262.

Dubois, R., Hostelter, M., Tosti-Vasey, J., & Swisher. J. (1989). Program report and evaluation: 1988-1989 school year. Unpublished report. Philadelphia, PA: Corporate Alliance for Drug Education.

Flay, B., Koepke, D., Thomson, S., Santi, S., Best, J., & Brown, S. (1989). Six-year follow-up of the first Waterloo school smoking prevention trial. American Journal of Public Health, 79, 1371-1376.

Flay, B., Ryan, K., Best, J., Brown, K., Kersell, M., d'Avernas, J., & Zanna, M. (1983). Cigarette smoking: Why young people do it and ways of preventing it. In P. McGrath & P. Firestone (Eds.), Pediatric and adolescent behavioral medicine (pp. 132-183). New York: Springer-Verlag.

Flay, B., Ryan, K., Best, J., Brown, K., Kersell, M., d'Avernas, J., & Zanna, M. (1985). Are social psychological smoking prevention programs effective? The Waterloo study. Journal of Behavioral Medicine, 8, 37-59.

Gersick, K., Grady, K., & Snow, D. (1988). Social-cognitive development with sixth graders and its initial impact on substance use. Journal of Drug Education, 18, 55-70.

Gilchrist, L., Schinke, S., Trimble, J., & Cvetkovich, G. (1987). Skills enhancement to prevent substance abuse among American Indian adolescents. International Journal of the Addictions, 22, 869-879.

Johnson, C., Graham, J., Hansen, W., Flay, B., McGuigan, K., & Gee, M. (1987). *Project Smart after three years: An assessment of sixth-grade and multiple-grade implementations*. Unpublished report. Pasadena, CA: University of Southern California-Institute for Prevention Research.

McAlister, A. (1983, May). *Approaches to primary prevention*. Presented at the National Academy of Science/National Research Council Conference on Alcohol and Public Policy, Washington DC.

Moskowitz, J., Malvin, J., Schaeffer, G., & Schaps, E. (1984). Evaluation of an affective development teacher training program. *Journal of Primary Prevention, 4*, 150-162.

Sarvela, P. (1984). Early adolescent substance use in rural northern Michigan and northeastern Wisconsin. *Dissertation Abstracts International, 46*(01), 2000A. (University Microfilms No. 8422327).

Sarvela, P., & McClendon, E. (1987). An impact evaluation of a rural youth drug education program. *Journal of Drug Education, 17*, 213-231.

Schaeffer, G., Moskowitz, J., Malvin, J., & Schaps, E. (1981). *The effects of a classroom management teacher training program on first-grade students: One year follow-up*. Unpublished report. Napa, CA: The Napa Project Pacific Institute for Research.

Schaps, E., Moskowitz, J., Condon, J., & Malvin, J. (1984). A process and outcome evaluation of an affective teacher training primary prevention program. *Journal of Alcohol and Drug Education, 29*, 35-64.

Schinke, S., Bebel, M., Orlandi, M., & Botvin, G. (1988). Prevention strategies for vulnerable pupils: School social work practices to prevent substance abuse. *Urban Education, 22*, 510-519.

Schinke, S.P., & Blythe, B.J. (1981). Cognitive-behavioral prevention of children's smoking. *Child Behavior Therapy, 3*, 25-42.

Schinke, S., & Gilchrist, L. (1983). Primary prevention of tobacco smoking. *Journal of School Health, 53*, 416-419.

Schinke, S., Gilchrist, L., Schilling, R., Snow, W., & Bobo, J. (1986). Skills methods to prevent smoking. *Health Education Quarterly, 13*, 23-27.

Schinke, S., Gilchrist, L., & Snow, W. (1985). Skills interventions to prevent cigarette smoking among adolescents. *American Journal of Public Health, 75*, 665-667.

Schinke, S., Gilchrist, L., Snow, W., & Schilling, R. (1985). Skills-building methods to prevent smoking by adolescents. Journal of Adolescent Health Care, 6, 439-444.

Shope, J., Dielman, T., & Leech, S. (1988, November). An elementary school-based alcohol misuse prevention program: Two year follow-up evaluation. Presented at the American Public Health Association Annual Meeting, Boston, MA.

APPENDIX D

DATA COLLECTION MATERIALS FOR IMPLEMENTATION ASSESSMENT

State D.A.R.E.® Coordinators Data Collection Materials

DRUG ABUSE RESISTANCE EDUCATION
TRAINING CENTER POLICY ADVISORY BOARD

January 31, 1992

EASTERN REGIONAL TRAINING CENTER
Virginia State Police
Post Office Box 27472
Richmond, VA 23261
(804) 674-2236 Office
(703) 387-5027 FAX

MIDWEST REGIONAL TRAINING CENTER
Illinois State Police
4 North Old State
Capitol Plaza, #4
Springfield, IL 62701
(217) 782-1064 Office
(217) 524-6949 FAX

SOUTHEAST REGIONAL TRAINING CENTER
State Bureau of Investigation
Post Office Box 29500
Raleigh, NC 27626
(919) 779-1400 Office
(919) 779-4831 FAX

SOUTHWEST REGIONAL TRAINING CENTER
Department of Public Safety
3110 N. 19th Avenue, #290
Phoenix, AZ 85015
(602) 223-2544 Office
(602) 279-0853 FAX

WESTERN REGIONAL TRAINING CENTER
Los Angeles Police Department
150 N. Los Angeles Street
Los Angeles, CA 90012
(213) 485-4856 Office
(213) 485-8867 FAX

Dear State Coordinators:

This letter serves to introduce Dr. Chris Ringwalt of the Research Triangle Institute (RTI), North Carolina, and to urge your participating in a study that RTI is conducting for the National Institute of Justice. The study is title "Past and Future Directions of the D.A.R.E. Program: An Evaluation Review." The primary purposes of the study are:

- to assess the organizational structure and operations of D.A.R.E. programs nationwide at the state and local levels;
- to review and synthesize D.A.R.E. evaluations to learn what they tell of D.A.R.E.'s effectiveness and the factors that determine it; and,
- to make suggestions concerning how drug prevention programs may be improved and expanded.

As part of the study, RTI is providing the attached questionnaire to all State D.A.R.E. Coordinators in states that have them. The questionnaire has been presented to and modified by the National D.A.R.E. Training Center Policy Advisory Board (NTCPAB).

The results of the study can be of substantial benefit to D.A.R.E., in the following ways:

- the review of the D.A.R.E. evaluation literature will give us ammunition to respond to critics who charge that D.A.R.E. has not proven its effectiveness;
- data from the attached survey will enable RTI to estimate the total number of school districts nationwide that presently have D.A.R.E., where they are concentrated, and how they compare to school districts without D.A.R.E.; and,
- hopefully, data from your survey and from Dr. Ringwalt's conversations with the members of the NTCPAB will support D.A.R.E.'s growing needs for financial support.

As chairman of the NTCPAB, I request your cooperation by completing the survey and returning it to RTI as soon as possible. If you have any questions, please feel free to contact either me at (602) 223-2544 or Dr. Ringwalt at (919) 543-6252.

Sincerely,

John F. Pope

Captain John F. Pope, Chairman
D.A.R.E. National Training Center Policy Advisory Board

BEST COPY AVAILABLE

REGIONAL TRAINING CENTERS ARE SUPPORTED BY GRANTS FROM THE BUREAU OF JUSTICE ASSISTANCE

RESEARCH TRIANGLE INSTITUTE

RTI

February 18, 1992

Dear State D.A.R.E. Coordinator:

In November 1991, the National Institute of Justice awarded the Research Triangle Institute and the University of Kentucky a grant to study the past and future directions of the Drug Abuse Resistance Education (D.A.R.E.) Program in the United States. Despite D.A.R.E.'s widespread popularity, relatively little is known about the administration and operation of the program at the state and local levels, its impact on students, or how it is integrated into a general school-based drug education and prevention curriculum.

During the spring semester, 1992, the Research Triangle Institute will investigate these issues through national surveys and interviews with State-level D.A.R.E. Coordinators like yourself, members of the D.A.R.E. National Training Center Policy Advisory Board, and school district drug prevention coordinators. The study will investigate how D.A.R.E. is integrated into school-based drug prevention programs and explore where drug education programs (including D.A.R.E.) should be going in the future.

We would like your assistance with this important study in two ways. First, we would like to get your responses about D.A.R.E. in your state. Please complete the enclosed questionnaire and return it to us as soon as possible in the provided postage-paid envelope. This survey examines the organization, implementation, and funding of D.A.R.E. in each state, as well as your thoughts about how D.A.R.E. may be improved. Second, we need your help identifying school districts in your State that offer D.A.R.E. We have attached to your questionnaire a preliminary random sample of school districts within your State, and would like you to indicate which districts have D.A.R.E.

We recognize that our request to identify school districts providing D.A.R.E. may be difficult to fulfill, but the success of our study depends upon these data. Our final sample of school districts, which will be based upon your responses, cannot be selected until your response is returned. Your participation in this study is critical, and it gives you the opportunity to influence the future of school-based drug education/prevention programs in this country.

Let me assure you that data for the study are intended for aggregate statistical analysis only. All information permitting the identification of individual respondents will be held in strict confidence, will be used only by persons engaged in or for the purposes of the study, and will not be disclosed or released to others for any purpose. Also, we would appreciate copies of any materials that explain the state level operation of D.A.R.E. in your state.

If you have any questions or concerns regarding the study or its uses, plea[illegible] do not hesitate to contact me directly. I can be reached, toll free, at 800/334-8571. Thank you for your cooperation in this important effort.

Sincerely,

Chris Ringwalt

Chris Ringwalt, Ph.D.
Project Director

Post Office Box 12194 Research Triangle Park, North Carolina 27709-2194
Telephone 919 541-6000 Fax: 919 541-5985 Cable RESTRINS, Raleigh, NC Telex: 802509 (RTI RTPK)

PAST AND FUTURE DIRECTIONS OF DRUG ABUSE RESISTANCE EDUCATION PROGRAMS

QUESTIONNAIRE FOR STATE D.A.R.E. COORDINATORS

Sponsored by the National Institute of Justice.
Grant # 91-DD-CX-K053

Conducted by:

Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27709-2194

Please supply the information requested using data from the current fiscal year.

1. **What agency has primary responsibility for managing the State D.A.R.E Program?**
   (CIRCLE ONE)

   01. State Governor's Office
   02. State Highway Patrol
   03. State Attorney General's Office
   04. State Police
   05. State Department of Public Safety
   06. State Investigative Agency
   07. State Department of Education/Public Instruction
   08. City/County Law Enforcement Agency
   09. Other (PLEASE SPECIFY)

   ____

2. **What is the total amount of funds received by the primary managing agency (indicated above) for operating D.A.R.E. at the state level in the 1991-1992 fiscal year?** (PLEASE INCLUDE BOTH ADMINISTRATION AND TRAINING FUNCTIONS. DO NOT INCLUDE FEDERAL OR STATE MONEY THAT IS USED TO DIRECTLY SUPPORT LOCAL PROGRAMS.)

   $ ☐,☐☐☐,☐☐☐

3. What percentage of the total amount listed in Question 2 above is received from the following sources in the 1991-1992 fiscal year? If none, please enter zero.

	Percent
a. Bureau of Justice Assistance grant	☐☐☐ %
b. State D.A.R.E foundation	☐☐☐ %
c. Grant from governor's office	☐☐☐ %
d. State Department of Education/Public Instruction	☐☐☐ %
e. Legislative funds	☐☐☐ %
f. Grant from other state agency	☐☐☐ %
g. Local (e.g., city, county) funds	☐☐☐ %
h. Corporate donations	☐☐☐ %
i. Individual donations	☐☐☐ %
j. Civic or community groups	☐☐☐ %
k. D.A.R.E. America	☐☐☐ %
Other (PLEASE SPECIFY)	
l. ______________________	☐☐☐ %
m. ______________________	☐☐☐ %
	Total = 100%

4. **During the 1991-1992 Fiscal year, how many full-time equivalent (FTE) positions at the state level, perform each of the following functions? (PLEASE INCLUDE POSITIONS IN BOTH STATE TRAINING CENTERS AND THE AGENCY PRIMARILY RESPONSIBLE FOR MANAGING D.A.R.E [IF DIFFERENT].)**

Note: An FTE is the number of hours actually spent on a job divided by the number of hours normally considered to be one full-time position. For example, if the project has one administrative secretary/clerk who works one-half time for D.A.R.E., you should enter .5 under the administration category. Please express all FTEs in whole numbers and decimals to the nearest tenth.

	Position Category	Number of FTE Positions (Where None, Please Enter 0)
a.	Training D.A.R.E. officers from within state	☐☐.☐
b.	Training D.A.R.E. officers from other states (including mentor officer training)	☐☐.☐
c.	Follow-up in-service training for D.A.R.E. officers	☐☐.☐
d.	Direct student instruction	☐☐.☐
e.	Implementation/development of local sites (include both schools and law enforcement agencies)	☐☐.☐
f.	On-site monitoring of D.A.R.E. officers' activities	☐☐.☐
g.	Program evaluation	☐☐.☐
h.	Maintaining D.A.R.E. operations: administration, management, planning, budgeting	☐☐.☐
	Other (PLEASE SPECIFY)	
i.	______________________________	☐☐.☐
j.	______________________________	☐☐.☐
k.	______________________________	☐☐.☐

5. **Does this state have a State D.A.R.E. Coordinator?**

01. Yes
02. No → (IF NO, SKIP TO QUESTION 10)

6. **Are you the State D.A.R.E. Coordinator or a member of the State D.A.R.E. Coordinators' office?**

   01. Yes
   02. No

7. **Please circle each of the following functions that are performed by the State D.A.R.E. Coordinator.** (CIRCLE ALL THAT APPLY)

   01. Formulating state policy

   02. Advocating D.A.R.E. to government officials, communities, and/or the general public

   03. Exploring funding sources

   04. Distributing funding

   05. Training D.A.R.E officers within the state

   06. Training D.A.R.E officers from other states

   07. Follow-up inservice training

   08. Direct student instruction

   09. Implementation/development of local sites

   10. On-site monitoring of D.A.R.E. officers' activities

   11. Program evaluation

   12. Approving a school district's involvement in D.A.R.E.

   13. Approving a local law enforcement agency's involvement in D.A.R.E.

   14. D.A.R.E. officer certification

   15. D.A.R.E. officer decertification

   Other (PLEASE SPECIFY)

   16. ______________________________
   17. ______________________________
   18. ______________________________

8. **Is there a signed agreement between the State D.A.R.E. Coordinator and your State's Department of Education that clarifies the roles of both agencies in implementing D.A.R.E. in your State?**

   01. Yes
   02. No

9. **What is the extent of communication between the State D.A.R.E. Coordinator and the State Department of Education?**

   01. None
   02. Little
   03. Some
   04. Great Deal

10. **Does this state have a State Training Center?**

   01. Yes
   02. No

11. **Is D.A.R.E. in this state overseen by a policy advisory board?**
   (CIRCLE ONE)

   01. Yes
   02. No → (IF NO, SKIP TO QUESTION 16)

12. Individuals from which of the following agencies serve on the State Policy Advisory Board? (CIRCLE ALL THAT APPLY)

01. Governor's Office
02. Department of Education/Public Instruction
03. State Law Enforcement Agency (e.g., Attorney General's office)
04. State D.A.R.E. Officers' Association
05. State Alcohol/Drug Abuse Agency
06. State legislature
07. State Judiciary
08. State health or mental health agencies
09. Other State Agencies (e.g., Social/Human Services, Transportation, Regional, County, or Local Government)
10. Parents
11. Citizens at Large
12. Students
13. Community-based organizations
14. Local law enforcement agency
15. Regional, County, Local Education - Agencies and Districts

Other (PLEASE SPECIFY)

16. ______________________________

17. ______________________________

13. From the categories listed in Question 12, select the agency of the Chairperson of the State Policy Advisory Board?

☐☐ Number of agency (01-17) of the Chairperson, Advisory Board

14. **What is the extent of communication between the State Policy Advisory Board and the State Department of Education/Public Instruction?** (CIRCLE ONE)

    01. None
    02. Little
    03. Some
    04. Great Deal

15. **Please circle each of the following functions which are performed by the State Policy Advisory Board.** (CIRCLE ALL THAT APPLY)

    01. Formulating state policy
    02. Advocating D.A.R.E. to government officials, communities, and/or the general public
    03. Exploring funding sources
    04. Distributing funding
    05. Training D.A.R.E officers within the state
    06. Training D.A.R.E officers from other states
    07. Follow-up inservice training
    08. Direct student instruction
    09. Implementation/development of local sites
    10. On-site monitoring of D.A.R.E. officers' activities
    11. Program evaluation
    12. Informing government officials, communities, and/or the general public about D.A.R.E.
    13. Approving a school district's involvement in D.A.R.E.
    14. Approving a local law enforcement agency's involvement in D.A.R.E.
    15. D.A.R.E. officer certification
    16. D.A.R.E. officer decertification

    Other (PLEASE SPECIFY)

    17. ____________________
    18. ____________________
    19. ____________________

16. Please indicate whether or not your state (or local programs in your state) has the following D.A.R.E. curricula in place and estimated dates of that curriculum's pilot testing and implementation.

	Curriculum Type	Have Curriculum		Year Piloted	Year First Implemented
a.	K-4 Visitations	01. Yes 02. No	→	19__	19__
b.	Core (Elementary)	01. Yes 02. No	→	19__	19__
c.	Junior High	01. Yes 02. No	→	19__	19__
d.	High School	01. Yes 02. No	→	19__	19__
e.	Parent	01. Yes 02. No	→	19__	19__

17. In how many of the school districts in your state with D.A.R.E. is the gang lesson taught? (CIRCLE ONE)

01. All
02. Most
03. Some
04. A few
05. None at all

18. How well is D.A.R.E. integrated into school-based drug prevention efforts at the state level? (CIRCLE ONE)

01. Very Poorly
02. Poorly
03. Fairly Well
04. Very Well

19. Does your D.A.R.E. Training Center have an education advisor? (CIRCLE ONE)

01. Yes
02. No → (IF NO, SKIP TO QUESTION 21)

20. What agency is the education advisor employed by?

____

21. What do you see as the most significant issues that you face in working with your state's Department of Education/Public Instruction? (IF NECESSARY, ATTACH ADDITIONAL PAGES)

____

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22. What do you see as the most significant issues the State D.A.R.E. Coordinator faces in your state? (IF NECESSARY, ATTACH ADDITIONAL PAGES)

23. The following list is a sample of school districts within your state. Please indicate whether or not each district offers D.A.R.E. The information which you provide in this section is extremely important. The data gathered from this list will yield a stratified sample of school districts which will be selected for further study.

Remember, please attach any materials that explain the state level operations of D.A.R.E. in your state.

Please supply the information requested below. This information will be used only if we should need to recontact you about the questionnaire.

a. Name of individual completing this questionnaire:

____

b. Title of individual completing this questionnaire:

____

c. Telephone Number:
(_____)______________

d. What is the best time to contact you?

____

PLEASE RETURN THIS QUESTIONNAIRE IN THE ENVELOPE PROVIDED OR MAIL TO:

Research Triangle Institute
ATTN.: Jody Greene (Hobbs 231)
P.O. Box 12194
Research Triangle Park, NC 27709-2194

THANK YOU FOR YOUR ASSISTANCE!

School District Drug Prevention Coordinators' Survey Data Collection Materials

May 1, 1992

Dear Drug Prevention Coordinator:

The National Institute of Justice has awarded the Research Triangle Institute (RTI) and the University of Kentucky a grant to study the past and future directions of the Drug Abuse Resistance Education (D.A.R.E.) Program in the United States. Despite D.A.R.E.'s widespread popularity, relatively little is known at the state and local levels about the program's administration and operation, its impact on youths, or how it is integrated into schools' general school-based drug education and prevention curricula.

Throughout this spring, RTI will investigate these issues through surveys of law enforcement officers responsible for D.A.R.E and of a nationally representative sample of school district drug prevention coordinators like yourself. We will investigate how D.A.R.E. is integrated into school-based drug prevention programs and explore where drug education programs (including D.A.R.E.) should be going in the future.

We would greatly appreciate your assistance with this important study. Please complete the enclosed questionnaire and return it to us as soon as possible in the enclosed postage-paid envelope. The primary purposes of this survey are to examine your school district's overall drug education program, to determine if your district has D.A.R.E., and to collect information about D.A.R.E.'s operation at the local level and the nature of its coordination with other school-based drug prevention programs. We are interested in hearing from you even if your district does not have D.A.R.E.

I want to assure you that data for this study are intended for aggregate statistical analysis only. All information permitting the identification of individual respondents will be held in strictest confidence, or will be used only by persons engaged in the study and only for the purposes of the study, and will not be disclosed or released to others for any purpose.

If you have any questions or concerns regarding the study or its uses, please call Teresa Daye at 1-800-334-8571. Thank you for your cooperation in this important effort.

Sincerely,

Chris Ringwalt, DrPH
RTI Project Director

CR/sfo

Enclosures

PAST AND FUTURE DIRECTIONS OF DRUG ABUSE RESISTANCE EDUCATION PROGRAMS

QUESTIONNAIRE FOR SCHOOL DISTRICT DRUG PREVENTION COORDINATORS

May 1992

Sponsored by the National Institute of Justice
Grant # 91-DD-CX-K053

Conducted by:

Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27709-2194

1. **Overall, how easy is it for students in your school district to obtain illicit drugs at school? (CIRCLE ONE)**

   01 Very easy
   02 Somewhat easy
   03 Not very easy
   04 Very difficult

2. **How much gang activity occurs in your district's schools? (CIRCLE ONE)**

   01 A lot
   02 Some
   03 Very little
   04 None

3. **Does your district have a written anti-drug policy? (CIRCLE ONE)**

   01 Yes
   02 No

4. **Did your district have a program formally designated as a Student Assistance Program (SAP) in the 1991-1992 school year? (Note: a Student Assistance Program, modeled after employee assistance programs in businesses, conducts such activities as screening for alcohol and drug involvement, making referrals, and working with students on problems that could lead to substance abuse.) (CIRCLE ONE)**

   01 Yes
   02 No → SKIP TO ITEM 8

5. At what grade levels are the school district's Student Assistance Programs primarily targeted? (CIRCLE ALL THAT APPLY)

01 Elementary school
02 Middle/Junior high school
03 Senior high school

6. How effective have the following individuals been in implementing the Student Assistance Program? (CIRCLE ONE RESPONSE FOR EACH ITEM [a. - j.])

		Very Effective	Somewhat Effective	Not Effective	Not Applicable
a.	Teachers	01	02	03	04
b.	Principals	01	02	03	04
c.	Students	01	02	03	04
d.	Guidance counselors	01	02	03	04
e.	Community professionals	01	02	03	04
f.	Community volunteers	01	02	03	04
g.	D.A.R.E. officers	01	02	03	04
h.	District/School nurses	01	02	03	04
i.	Other school staff	01	02	03	04
j.	Other (PLEASE SPECIFY) ______________ ______________	01	02	03	04

7. Which of the individuals listed in item 6 are trained to participate in Student Assistance Programs? (CIRCLE ALL THAT APPLY)

01 Teachers
02 Principals
03 Students
04 Guidance counselors
05 Community professionals
06 Community volunteers
07 D.A.R.E. officers
08 District/School nurses
09 Other school staff
10 Other (PLEASE SPECIFY)
____
____

8. Did your school district offer any alcohol and other drug education and prevention programming in the 1991-1992 school year? (CIRCLE ONE)

01 Yes
02 No → **SKIP TO ITEM 48**

9. During the 1991-1992 school year, how many schools in this district did NOT have an alcohol and other drug education and prevention program? (IF ALL SCHOOLS HAD A PROGRAM, ENTER ZERO)

Number of Schools Without Program		
☐☐☐	a.	Elementary schools
☐☐☐	b.	Middle/Junior high schools
☐☐☐	c.	Senior high Schools
☐☐☐	d.	Other schools (e.g., special education, vocational, dropout/dropin)

CHART 1 LISTS ANSWERS FOR ITEMS 10 THROUGH 13b, ALONG WITH 13 PUBLISHED AND TWO "OTHER" CURRICULA THAT MAY APPLY TO EACH ANSWER. IF YOU USE ANY PUBLISHED CURRICULA OTHER THAN THOSE INDICATED, PLEASE LIST THEM IN THE COLUMNS MARKED "OTHER" AND SPECIFY THE NAME OF THE CURRICULUM.

10. During the 1991-1992 school year, which of the alcohol and other drug education and prevention curricula or programs in Chart 1 were used by your school district at each grade level?
(FOR EACH GRADE LEVEL LISTED ON CHART 1, CIRCLE ALL CURRICULA THAT APPLY)

11. Which of the substances in Chart 1 are targeted by each of the alcohol and other drug education and prevention curricula or programs?
(FOR EACH SUBSTANCE LISTED ON CHART 1, CIRCLE ALL CURRICULA THAT APPLY)

12. Who teaches each of the alcohol and other drug education and prevention curricula or programs?
(FOR EACH EDUCATOR TYPE LISTED ON CHART 1, CIRCLE ALL CURRICULA THAT APPLY)

13a. How many hours of training do teachers receive for each of the alcohol and other drug education and prevention curricula or programs?
(FOR EACH LEVEL OF TRAINING LISTED ON CHART 1, CIRCLE ALL CURRICULA THAT APPLY)

13b. Do teachers of the alcohol and other drug education and prevention curriculum or programs receive in-service training?
(FOR FOLLOWUP IN-SERVICE TRAINING, CIRCLE A RESPONSE FOR EACH CURRICULUM)

Chart 1.

	Published Curricula															
	Quest	D.A.R.E	Smart	Project Charlie	Impact Teaching	Discover Skills for Life	Choosing for Yourself	Here's Looking at You	Drug Free	Facts, Feelings, Family, & Friends	Feelings Like Yours	That's Life	Learning to Live Drug Free	Other Published Curriculum Specify ___	Other Published Curriculum Specify ___	Other Drug Prevention Activities
10. **Grade**																
Elementary	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Middle/Junior High	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Senior High	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
11. **Substance**																
Alcohol	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Tobacco	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Marijuana	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Cocaine/crack	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Other drugs	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
12. **Educators**																
Teachers	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
School Counselors	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
School Nurses	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Mental Health Agency	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Police Officers	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Volunteers	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
13a. **Av. hrs. training per instructor**																
None	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
1-3 hours	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
4-6 hours	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
1 day	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
2 days	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
3+ days	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
13b. Followup Inservice Training	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N

BEST COPY AVAILABLE

14. What is the average number of hours per week of drug education in the classroom each student in your district receives? (PLEASE GIVE BEST ESTIMATE FOR EACH GRADE)

	K	1	2	3	4	5	6	7	8	9	10	11	12
Average hrs./wk. for each student	__	__	__	__	__	__	__	__	__	__	__	__	__

15. What do teachers of the alcohol and other drug education and prevention program do if they find out that a student is involved with drugs? (CIRCLE ALL THAT APPLY)

	Drug Education/Prevention Instructors		
		(IF APPLICABLE)	
	School Personnel	Police Officers	Other Non-school Personnel
a. They don't do anything	01	02	03
b. Contact parents directly	01	02	03
c. Refer students to SAP, school counselor, school nurse, or prevention coordinator	01	02	03
d. Refer students directly to outside treatment agency	01	02	03
e. File report with principal	01	02	03
f. File report with police	01	02	03
g. File report with counselor	01	02	03
h. Other (SPECIFY) ____________	01	02	03

15a. What do teachers of the alcohol and other drug education and prevention programs do if students report that their parents are using drugs? (CIRCLE ALL THAT APPLY)

	Drug Education/Prevention Instructors		
		(IF APPLICABLE)	
	School Personnel	Police Officers	Other Non-school Personnel
a. They don't do anything	01	02	03
b. Contact parents directly	01	02	03
c. Refer students to SAP, school counselor, school nurse, or prevention coordinator	01	02	03
d. File report with principal	01	02	03
e. File report with police	01	02	03
f. File report with counselor	01	02	03
g. Other (SPECIFY) ____________	01	02	03

16. Did your school district offer the D.A.R.E. curriculum during the current school year?

01 Yes → SKIP TO ITEM 19
02 No

17. Has your district ever offered or considered implementing the D.A.R.E. curriculum? (CIRCLE ONE)

01 Have considered and have no plans to implement in the future
02 Have considered and are undecided about implementation
03 Have considered and will implement in the future
04 Had D.A.R.E. at one time, but no longer use
05 Have not considered implementing D.A.R.E.

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18. **Please elaborate on your answer to item 17. THEN SKIP TO ITEM 42.**

QUESTIONS 19-41 APPLY ONLY TO THOSE WHO USE THE D.A.R.E. CURRICULUM.

19. **Which of the following agencies in the communities served by this school district administer D.A.R.E. at the local level? (CIRCLE ALL THAT APPLY)**

01	Sheriff's department
02	City/town police department
03	County police department
04	State Police/Highway Patrol
05	Other (PLEASE SPECIFY) ______

20. **Which agency has primary responsibility for coordinating the following D.A.R.E. activities in your school district? (CIRCLE ONE RESPONSE FOR EACH ITEM [a. - e.])**

		Coordinating Agency			
D.A.R.E. Activity		**Police Department**	**Board of Education**	**Superintendent/ District Administration**	**School Administrators and Staff**
a.	Officer selection	01	02	03	04
b.	School selection	01	02	03	04
c.	Classroom selection	01	02	03	04
d.	Classroom activities	01	02	03	04
e.	Extra-curricular activities	01	02	03	04

21. What problems with the coordination of D.A.R.E. has your school district experienced?

____

____

____

____

22. How well is D.A.R.E. integrated into your school district's overall alcohol and other drug education and prevention program? (CIRCLE ONE)

01 Very well
02 Well
03 Poorly
04 Very poorly

23. Are there written agreements between education and law enforcement concerning D.A.R.E.'s administration/implementation in your school district? (CIRCLE ONE)

01 Yes
02 No → **SKIP TO ITEM 25**

24. What do these agreements cover?

____

____

____

____

25. Please indicate below the sources of funding for your district's D.A.R.E. program in the 1991-1992 school year. (CIRCLE ALL THAT APPLY)

01 Drug-Free Schools and Communities Act (DFSCA) Education funds
02 DFSCA Governor's funds
03 Other federal funds
04 State non-DFSCA funds
05 County or city alcohol and other drug program
06 District funds
07 Additional funds from a consortium of local education authorities (LEAs)
08 Law enforcement agencies
09 Community agencies
10 Corporate donations
11 Individual donations
12 Other (PLEASE SPECIFY) ____________________________________

26. How many schools in your district have the following D.A.R.E. curricula in place this year (1991-1992), and in what year was each curriculum first implemented? (IF NONE, ENTER ZERO)

D.A.R.E. Curriculum	Number of Schools With Curricula	When Implemented
a. K-4 Visitations	______	19___
b. Core (Elementary)	______	19___
c. Junior High	______	19___
d. High School	______	19___
e. Parent	______	19___

27. At what grade levels are the D.A.R.E. curricula you identified in item 26 implemented in your school district? (CIRCLE ALL THAT APPLY) (LEVELS INDICATED HERE SHOULD AGREE WITH THOSE INDICATED IN ITEM 26)

PK K 1 2 3 4 5 6 7 8 9 10 11 12 Other

28. Is D.A.R.E. provided to all classes in the grades marked in item 27? (CIRCLE ONE)

01 Yes
02 No

29. Are there any barriers to implementing D.A.R.E. in all of your district's schools? (CIRCLE ONE)

01 Yes
02 No → **SKIP TO ITEM 31**

30. What are the barriers you indicated in item 29? (CIRCLE ALL THAT APPLY)

01 Lack of funding
02 Lack of materials
03 Lack of D.A.R.E officers
04 Lack of support from Board of Education
05 Lack of support from principals
06 Lack of support from teachers
07 Lack of support from community
08 Scheduling difficulties
09 Other (PLEASE SPECIFY) ______________________________

31. Is D.A.R.E. adapted in any way to meet the special needs of your school district that result from any of the following? (CIRCLE ALL THAT APPLY)

01 Gang activity
02 Drug availability
03 Racial/ethnic composition
04 Student or community poverty
05 Inner-city schools
06 Other

32. If you circled any of the responses in item 31, please elaborate on how D.A.R.E. is adapted.

____

____

____

____

33. **Is the D.A.R.E. gang lesson taught in your school district? (CIRCLE ONE)**

01 Yes
02 No

34. **Does your district plan to expand or decrease the use of D.A.R.E. in your schools in the next 5 years? (CIRCLE ONE)**

01 Greatly expand
02 Expand
03 Stay the same
04 Decrease
05 Greatly decrease

35. **Generally speaking, what is the level of participation of classroom teachers during D.A.R.E. sessions? (CIRCLE ONE)**

01 None
02 Little
03 Some
04 A great deal

36. **Generally speaking, which of the following activities do teachers perform during D.A.R.E.? (CIRCLE ALL THAT APPLY)**

01 Remain in the classroom during the lesson
02 Collect D.A.R.E. homework
03 Assign D.A.R.E. homework
04 Integrate D.A.R.E. messages into other activities
05 Other

37. **Which of the following individuals, groups, or agencies are actively involved in D.A.R.E. in your schools or communities? (CIRCLE ALL THAT APPLY)**

01 Teachers
02 Other school staff
03 Parents
04 Churches
05 Youth groups
06 Civic groups

38. **How supportive of D.A.R.E. have the following been?**
(CIRCLE ONE RESPONSE FOR EACH ITEM [a. - f.])

		Very Supportive	Somewhat Supportive	Not Supportive	Not Applicable
a.	Community	01	02	03	04
b.	School personnel	01	02	03	04
c.	Students	01	02	03	04
d.	Parents	01	02	03	04
e.	Law enforcement	01	02	03	04
f.	Civic groups	01	02	03	04

39. **How would you rate each of the following for components of D.A.R.E.?**
(CIRCLE ONE RESPONSE FOR EACH ITEM [a. - e.])

		Very Satisfactory	Satisfactory	Unsatisfactory	Very Unsatisfactory
a.	Program curriculum	01	02	03	04
b.	Program teaching	01	02	03	04
c.	Administrative requirements	01	02	03	04
d.	Receptivity of students	01	02	03	04
e.	Effects on students	01	02	03	04

40. **Are there any changes that you think should be made in your district or community to make the D.A.R.E. program more effective?**

01 Yes
02 No → **SKIP TO ITEM 42**

41. **What changes in D.A.R.E. would you suggest? (ATTACH ADDITIONAL PAPER IF NECESSARY)**

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THE NEXT SET OF QUESTIONS REFERS TO YOUR OTHER (NON-D.A.R.E.) ALCOHOL AND DRUG PREVENTION AND EDUCATION CURRICULA. IF D.A.R.E. IS THE ONLY CURRICULUM IMPLEMENTED IN YOUR SCHOOL DISTRICT, SKIP TO ITEM 48.

42. Please indicate below the sources of funding for your school district's alcohol and drug education and prevention programs (other than D.A.R.E.) in the 1991-1992 school year.
(CIRCLE ALL THAT APPLY)

01 DFSCA Education funds
02 DFSCA Governor's funds
03 Other federal funds
04 State non-DFSCA funds
05 County or city alcohol and other drug program
06 District funds
07 Additional funds from a consortium of local education authorities (LEAs)
08 Law enforcement agencies
09 Community agencies
10 Corporate donations
11 Individual donations
12 Other (PLEASE SPECIFY) ______________________

43. Please indicate for each school type which of the following curriculum content areas are a major focus of your school district's alcohol and drug education and prevention programs other than D.A.R.E. (CIRCLE ALL THAT APPLY)

	School Type		
Curriculum Content Area	**Elementary School**	**Middle/ Junior High School**	**Senior High School**
a. Knowledge (e.g., what drugs are and consequences of drug use)	01	02	03
b. Decision making (e.g., teaching strategies for identifying problems and making choices)	01	02	03
c. Pledges (e.g., personal commitments not to use alcohol/drugs)	01	02	03

(continued)

Curriculum Content Area	School Type Elementary School	 Middle/ Junior High School	 Senior High School
d. Values clarification (e.g., reflection of things that are important to student)	01	02	03
e. Goal setting (e.g., identification of personal objectives and ways to achieve them)	01	02	03
f. Stress management (e.g., identification of stressful events and managing their effects)	01	02	03
g. Self-esteem enhancement (e.g., development of feelings of worth and value)	01	02	03
h. Resistance skills training (e.g., identification of and resistance to various forms of pressure)	01	02	03
i. Life skills training (e.g., development of skills for interaction and communication)	01	02	03
j. Norm setting (e.g., establishment of conservative norms about use)	01	02	03
k. Peer counseling/assistance/support	01	02	03
l. Alternatives to drug use (e.g., physical activity)	01	02	03

44. Are your school district's drug prevention programs (other than D.A.R.E.) selected or adapted in any way to meet the special needs of your school district that are related to any of the following? (CIRCLE ALL THAT APPLY)

01	Gang activity
02	Drug availability
03	Racial/ethnic composition
04	Student or community poverty
05	Inner-city schools
06	Other

45. How effective have the following been in promoting your school district's alcohol and drug education and prevention programs (other than D.A.R.E.)? (CIRCLE ONE RESPONSE FOR EACH ITEM [a. - e.])

		Not Used	Very Effective	Somewhat Effective	Not Effective
a.	Local news media	00	01	02	03
b.	Churches	00	01	02	03
c.	Youth social groups	00	01	02	03
d.	Civic groups	00	01	02	03
e.	Youth recreational groups	00	01	02	03

46. How supportive of this district's alcohol and drug education and prevention programs (other than D.A.R.E.) have the following been? (CIRCLE ONE RESPONSE FOR EACH ITEM [a. - f.])

		Very Supportive	Somewhat Supportive	Not Supportive	Not Applicable
a.	Community	01	02	03	04
b.	School personnel	01	02	03	04
c.	Students	01	02	03	04
d.	Parents	01	02	03	04
e.	Law enforcement	01	02	03	04
f.	Civic groups	01	02	03	04

47. How would you rate each of the following components of your school district's alcohol and drug education and prevention programs in general (other than D.A.R.E.)? (CIRCLE ONE RESPONSE FOR EACH ITEM [a. - e.])

		Very Satisfactory	Satisfactory	Unsatisfactory	Very Unsatisfactory
a.	Program curriculum	01	02	03	04
b.	Program teaching	01	02	03	04
c.	Administrative requirements	01	02	03	04
d.	Receptivity of students	01	02	03	04
e.	Effects on students	01	02	03	04

48. **If you have any other information that you think is important to this study of school-based drug education and prevention programs, please summarize below. (ATTACH ADDITIONAL PAPER IF NECESSARY)**

Dear Drug Prevention Coordinator:

Recently RTI sent you a questionnaire about the drug prevention education programs in your school district. If you have already completed the questionnaire and returned it, I want to thank you very much for your cooperation.

If you have not yet had the opportunity to complete the questionnaire, please do so as soon as possible. Your cooperation is vital in the success of our study.

If you have not received the questionnaire or are having difficulty completing it, please contact Teresa Daye toll-free at 1-800-344-8571.

Thank you for your help!

Chris L. Ringwalt
RTI Project Director

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Chris L. Ringwalt
RTI Project Director

Site Visit Protocols

DARE
(For Schools with DARE Only)

	District Drug Prevention Coordinator/ Curriculum Specialist	Classroom Teachers	Police Chief/ Sheriff	DARE Officers
A. ORGANIZATION				
How is DARE organized and managed?	X	X	X	X
What agencies/organizations coordinate DARE?	X		X	
Has coordination enhanced DARE activities? If so, how?	X	X	X	X
What are responsibilities of each local agency regarding DARE officer selection and monitoring, classroom activities, and extra-curricula activities?	X		X	
Are there written agreements between/among the agencies involved with DARE? If so, what areas do they cover?	X		X	
What problems exist concerning the coordination of DARE activities?	X	X	X	X

DARE
(For Schools with DARE Only)

	District Drug Prevention Coordinator/ Curriculum Specialist	Classroom Teachers	Police Chief/ Sheriff	DARE Officers
B. IMPLEMENTATION				
What is the history of the school's involvement with DARE?	X		X	
At what grades is DARE implemented? If DARE is not implemented in all eligible schools/classrooms, why not?	X			
What is the level of participation by classroom teachers in DARE sessions both in terms of hours and input? other school staff?	X	X		X
What individuals in the school and the community are involved in implementing DARE (e.g., teacher, other school staff, churches, Boy Scouts, Little League)?	X		X	X
How have local news media and other community groups been used to promote DARE?	X		X	

DARE
(For Schools with DARE Only)

	District Drug Prevention Coordinator/ Curriculum Specialist	Classroom Teachers	Police Chief/ Sheriff	DARE Officers
How do DARE officers handle juvenile drug involvement when they find or suspect it? parental drug involvement?	X	X	X	X
How supportive has the community been of DARE?	X		X	
How supportive have school personnel been of DARE?	X	X	X	X
What are plans for DARE in the future?	X		X	
How many DARE officers teach in the schools? About how many classes does each officer teach? What do they do at school besides teach the curriculum, and how much time do they spend on each extra curricula activity?			X	X
How long have you been involved with DARE?	X	X	X	X
C. FUNDING				
What are the resources and funding arrangements for DARE (e.g., public, private, in-kind)?	X		X	
How do these resources, or lack thereof, affect implementation?	X		X	

DARE
(For Schools with DARE Only)

	District Drug Prevention Coordinator/ Curriculum Specialist	Classroom Teachers	Police Chief/ Sheriff	DARE Officers
D. CURRICULA				
What DARE curricula are implemented in school districts; how long has each curriculum been in place?	X			
What substances, if any, are specifically targeted by the DARE curricula?	X	X		X
Is DARE being tailored to meet the needs of the school if drug availability is a special concern? If so, how?	X	X	X	X
Is DARE being tailored to meet the needs of the school if gang activity is a special concern? If so, how?	X	X	X	X
Is DARE being tailored to meet the needs of the school's ethnic minorities? If so, how?	X	X	X	X
How does DARE do in terms of program teaching, administrative requirements, receptivity and responsiveness of students, and perceived effects on students?	X	X		
E. INTEGRATION				
How well is DARE integrated into local school-based drug prevention efforts? Are documents available that address the overall drug-prevention plan?	X			
F. IMPROVEMENT				
What procedural improvements regarding DARE would you suggest?	X	X	X	X

(For Schools with and without DARE)

NON-DARE SCHOOL-BASED DRUG PREVENTION PROGRAMS

	District Drug Prevention Coordinator/ Curriculum Specialist	Classroom Teachers
A. ORGANIZATION		
What agency/individual has overall oversight responsibility for the district's school-based drug prevention effort?	X	
Does the school district's drug prevention program have any advisory or coordinating committees? What are their responsibilities?	X	
How are non-DARE programs administered? Are there procedural or administrative differences among them?	X	X
Are there written agreements between any agencies involved with non-DARE school-based programs? If so, what do they cover? Is law enforcement included among these agencies?	X	
What problems exist concerning the administration and coordination of non-DARE school-based programs?	X	X
B. IMPLEMENTATION		
Is there a written school anti-drug policy?	X	
Does the school district have a Student Assistance Program? Have teachers received training in using the SAP effectively? Have teachers contributed to the SAP? If school has DARE, has the DARE officer received training in using the SAP effectively? Has the DARE office contributed to the SAP?	X	X

NON-DARE SCHOOL-BASED DRUG PREVENTION PROGRAMS
(For Schools with and without DARE)

	District Drug Prevention Coordinator/ Curriculum Specialist	Classroom Teachers
What non-DARE school-based drug prevention/education programs are offered in the school, and at what grades?	X	
What is the history of the school's non-DARE school-based drug prevention programs?	X	
Who teaches non-DARE school-based prevention programs? How are they trained?	X	X
Are non-DARE school-based prevention programs implemented in all eligible schools/classrooms? If not, why not?	X	
What is the level of participation by classroom teachers in non-DARE school-based prevention programs?	X	X
What individuals are in the community are involved in implementing non-DARE school-based prevention programs?	X	
How have local news media and other community groups been used to promote non-DARE school-based drug prevention programs? other school staff?	X	

NON-DARE SCHOOL-BASED DRUG PREVENTION PROGRAMS
(For Schools with and without DARE)

	District Drug Prevention Coordinator/ Curriculum Specialist	Classroom Teachers
How do non-DARE school-based programs handle juvenile drug involvement when they find or suspect it? parental involvement?	X	X
How supportive has the community been of non-DARE drug prevention programs?	X	
How supportive have school personnel been of non-DARE drug prevention programs?	X	X
If school does not have DARE, has district considered implementing a DARE program? If yes, why has no DARE program been implemented? If no, why not?	X	
What are plans for non-DARE school-based prevention programs in the future?	X	
C. FUNDING		
What are the resources and funding arrangements for non-DARE school-based prevention programs (e.g., public, private, in-kind)?	X	
How do these resources affect implementation?	X	

NON-DARE SCHOOL-BASED DRUG PREVENTION PROGRAMS
(For Schools with and without DARE)

	District Drug Prevention Coordinator/ Curriculum Specialist	Classroom Teachers
D. CURRICULA		
What substances, if any, are specifically targeted by the non-DARE school based-prevention curricula?	X	X
Are non-DARE school-based prevention programs being tailored to meet the needs of the school if drug availability is a special concern? If so, how?	X	X
Are non-DARE school-based drug prevention programs being tailored to meet the needs of the school if gang activity is a special concern? If so, how?	X	X
Are non-DARE school-based prevention programs being tailored to meet the needs of the school's ethnic minorities? If so, how?	X	X
How do non-DARE school-based drug prevention programs do in terms of program teaching, administrative requirements, receptivity and responsiveness of students, and perceived effects on students?	X	X

NON-DARE SCHOOL-BASED DRUG PREVENTION PROGRAMS
(For Schools with and without DARE)

	District Drug Prevention Coordinator/ Curriculum Specialist	Classroom Teachers
E. INTEGRATION		
What mechanisms exist to coordinate various non-DARE school-based drug prevention efforts?	X	
Has the school district done any formal assessments of drug prevention needs and how these needs should be met?	X	X
F. IMPROVEMENT		
What potentially useful procedural improvements would you suggest regarding non-DARE school-based prevention programs ?	X	X

OBSERVATIONS OF DARE LESSON

What do teachers and assistants do during class?
- stay in classroom
- participate in discussion
- encourage participation
- closing/reinforcing remarks to students
- any other adults present during the lesson

How officer presents himself?
- as officer, teacher, friend
- wearing gun
- approachable demeanor
- ask students questions
- able to gain student participation
- treat students differently (ie, racially)
- can he/she answer students questions
- does he/she appear knowledgeable
- use role-playing techniques

How do youth respond?
- ask questions
- show interest in lesson
- treat officer with respect

How closely does the lesson taught
- how different
- altered for any particular reason (ie, slow learners,race, etc)
- use videos

What kind of kids is the lesson provided to?
- regular/fast/slow kids
- racial distribution
- how many kids in classroom

What about the officer?
- how long teaching
- teaching DARE his/her only responsibility

Can you get a copy of all materials used to teach the lesson?

OBSERVATIONS OF NONDARE LESSON

Can ask virtually the same questions as above by simply finding out who the teacher of the lesson is and replacing that person with "officer"